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REPUBLIC OF KOREA

STAFF APPRAISAL OF A POPULATION PROJECT

November 16, 1979

Population, Health and Nutrition Department

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CURRENCY EQUIVALENTS

US\$1.00	=	₩ 485
₩ 1.00	=	US\$ 0.0021
₩ 1 million	=	US\$ 2,062

GOVERNMENT OF THE REPUBLIC OF KOREA  
FISCAL YEAR

January 1 to December 31

ABBREVIATIONS

EPB	-	Economic Planning Board
FP	-	Family Planning
GROK	-	Government of the Republic of Korea
IEC	-	Information, Education and Communications
IPPF	-	International Planned Parenthood Federation
IUD	-	Intra-Uterine Device
JOC	-	Joint Operational Committee
KDI	-	Korean Development Institute
KHDI	-	Korean Health Development Institute
KIFP	-	Korean Institute for Family Planning
MCH	-	Maternal and Child Health
MOHA	-	Ministry of Home Affairs
MOHSA	-	Ministry of Health and Social Affairs
MWRA	-	Married Women of Reproductive Age
OB/GYN	-	Obstetrics/Gynecology
OSROK	-	Office of Supplies, Republic of Korea
PPFK	-	Planned Parenthood Federation of Korea
SIDA	-	Swedish International Development Authority
TB	-	Tuberculosis
UNFPA	-	United Nations Fund for Population Activities
UNICEF	-	United Nations Children's Fund
USAID	-	United States Agency for International Development
WHO	-	World Health Organization
WRA	-	Women of Reproductive Age

DEFINITIONS

Crude Birth Rate:	Number of live births per year per 1,000 population.
Crude Death Rate:	Number of deaths per year per 1,000 population.
Rate of Natural Increase:	Difference between crude birth and crude death rates; usually expressed as a percentage.
Rate of Population Growth:	Rate of natural increase adjusted for (net) migration, expressed as a percentage of the total population in a given year.
Age-Specific Fertility Rate:	Number of live births per 1,000 women in a given age group, in a given year. It is usually calculated for 5-year age groups.
Total Fertility Rate:	The average number of children that would be born to a woman if she were to live to the end of her child-bearing years, and bear children according to prevailing age-specific fertility rates. The Total Fertility Rate often serves as an estimate of the average number of children per family.
Gross Reproduction Rate:	This is the same as the Total Fertility Rate, but refers to the average number of daughters a woman would have under the prevailing fertility pattern.
Net Reproduction Rate:	The number of daughters a woman would have under prevailing fertility <u>and</u> mortality patterns who would survive to the mean age of childbearing.
Infant Mortality Rate:	Annual number of deaths of infants under 1 year per 1,000 live births during the same year.
Maternal Mortality Rate:	Number of maternal deaths per 1,000 births attributable to pregnancy, childbirth, or puerperal complications (i.e., within six weeks following childbirth).
Life Expectancy:	Average number of years, children born in a given year can expect to live if mortality rates for each age/sex group remain the same.
Age Dependency Ratio:	Number of people 14 years and under plus people 65 years and over, divided by the population aged 15 to 64 years.



REPUBLIC OF KOREA

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BASIC DATA

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Population (millions)	mid-1979	37.3
Total Area (000 km <sup>2</sup> )		98.9
Density	mid-1979	377
Agricultural Area (000 km <sup>2</sup> )		22.6
Density	mid-1979	1,650
Crude Birth Rate (per 1000)	1977	23.9
Crude Death Rate (per 1000)	1977	6.4
Rate of Natural Increase (per 100)	1977	1.75
Rate of Emigration (per 1000)	1977	1.2
Rate of Population Growth (per 100)	1977	1.63
Life Expectancy At Birth (years)	1975	66.2
Infant Mortality Rate (per 1000 live births)	1977	37
Child (aged 1-4) Mortality Rate (per 1000)	1977	5.0
Population per Physician	1977	1,677
Population per Nursing Person	1977	517
Total Fertility Rate	1976	3.2
Women of Reproductive Age (15-44)	1975	8.0 mil.
Married Women of Reproductive Age	1975	4.5 mil.
Annual New Family Planning Acceptors (000s)	1978	713
Continuing Users as % MWRA	1976	44.2%
Age Structure (0-14 years)	1975	39%
(15-64 years)	Census	58%
(65+ years)	adjusted	3%
Age Dependency Ratio	1975	0.71
Economic Dependency Ratio	1975	1.2
Adult Literacy Rate	1975	91
School Enrollment: Primary %	1975	104
Secondary %	1976	63
Urban Population	1975	48%
Unemployment Rate	1977	3.8%
GNP (US\$ mil.)	1977	31,424 <sup>a/</sup>
GNP per capita	1977	864
Average Annual Growth Rate	1960-77	7.4

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<sup>a/</sup> Current Prices

Sources: IBRD Social Indicators Data Sheet, May 1979.  
IBRD. World Development Indicators, 1979.

Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol. I, December 1978.

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Economic Planning Board. Korea Statistical Yearbook 1978.



REPUBLIC OF KOREA

STAFF APPRAISAL OF A POPULATION PROJECT

Table of Contents

	<u>Page No.</u>
I. POPULATION GROWTH AND HEALTH SITUATION .....	1
A. Introduction .....	1
B. Population Growth .....	1
-- Recent Trends .....	1
-- Demographic Prospects and Implications .....	2
C. Health .....	4
II. POPULATION AND HEALTH POLICY, STRATEGY AND PROGRAMS .....	5
A. Policy .....	5
-- Population .....	5
-- Health .....	6
B. Organization .....	7
-- Policy-Making Agencies .....	7
-- Executing Agencies .....	7
C. Financing of Population Activities .....	9
D. Strategy .....	10
-- Overall Strategy and Evolution .....	10
-- Family Planning Services and the Health Delivery System .....	11
-- Information, Education and Communication .....	12
-- Training .....	13
-- Research and Evaluation .....	13
E. Program Performance .....	14
F. Problem Areas and Program Constraints .....	14
III. THE PROJECT .....	18
A. Project Concept and Objectives .....	18
-- Project Concept .....	18
-- Project Objectives .....	18
B. Project Composition .....	19
C. Project Description .....	22
-- Health and Family Planning Delivery System .....	22
-- Training Activities for Health and Family Planning .	24
-- Information, Education and Communication Activities in Health and Family Planning .....	25
-- Research and Evaluation .....	26
-- Project Implementation Capacity .....	27

Table of Contents (Continued)

Page No.

IV.	PROJECT COST, FINANCING, IMPLEMENTATION AND RISK .....	27
A.	Cost .....	27
B.	Proposed Financing .....	29
C.	Disbursements .....	30
D.	Project Implementation .....	30
	-- Project Management .....	30
	-- Construction of Physical Facilities .....	31
	-- Acquisition of Furniture, Equipment and Vehicles .....	31
	-- IEC .....	31
	-- Training .....	32
	-- Research and Evaluation .....	32
	-- Operation of Health and Family Planning Facilities .....	32
E.	Accounting .....	33
F.	Procurement .....	33
G.	Project Evaluation .....	34
H.	Project Risk .....	34
V.	PROJECT BENEFITS AND JUSTIFICATION .....	35
	-- Project Benefits .....	35
	-- Project Justification .....	36
VI.	AGREEMENTS .....	37

ANNEXES

1	Family Planning Budget by Source of Funds .....	40
2	National Budget Allocations to MOHSA (Health and Family Planning) .....	41
3	Staffing Pattern of Health Centers .....	42
4	Risk Approach for Maternal and Child Health Care .....	43
5	Schedule of Accommodations for MCH/FP Centers, Type A and B.	
6	Locations of MCH/FP Centers, Day Care Centers, and FP Clinics .....	49
7	Day Care Centers .....	50
8	Schedule of Accommodations for PPFK Family Planning Clinics.	52
9	Schedule of Accommodations for Expansion of KIFP Training and PPFK Production Facilities .....	53
10	Detailed Cost Estimate .....	54
11	Estimated Disbursement Schedule .....	56
12	Project Activity Matrix .....	57
13	Summary Implementation Schedule .....	58



<u>ANNEXES</u> (Continued)	<u>Page No.</u>
14     Supporting Tables, Charts and Map .....	60
<u>Tables</u>	
T-1 Demographic Trends .....	61
T-2 Changes in the Proportion of Married Women of Reproductive Age (15-44 Years) Practicing Contraception or Having Had Abortions .....	62
T-3 Age Distribution by Broad Age Groups, 1960-1975 ...	63
T-4 Population: 1975 Census, Projections and Vital Rates .....	64
<u>Charts</u>	
C-1 Organizational Chart of the Korean Family Planning Program .....	66
C-2 Organizational Chart of the Ministry of Health and Social Affairs (MOHSA) .....	67
C-3 Organizational Chart of Provincial Administration..	68
C-4 Organizational Chart of the Korean Institute for Family Planning (KIFP) .....	69
C-5 Organizational Chart of the Planned Parenthood Federation of Korea (PPFK) .....	70
<u>Map</u>	
M-1 Korea: Population Project IBRD 14433 R	
15     Selected Documents and Data Available in the Project File	71

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This report is based on the findings of an appraisal mission consisting of Mr. R. Cuca, Dr. V. Jagdish, Messrs. A. Shaw and R. van Ommen, IBRD; and Mr. J.E. Lundeborg, Consultant, which visited Korea in April-May 1979. This report was prepared by Mr. R. Cuca with contributions from the other mission members.



## I. POPULATION GROWTH AND HEALTH SITUATION

### A. Introduction

1.01 The population of the Republic of Korea increased from about 17 million in 1945 to about 37.3 million in mid-1979 or at an average annual rate of growth of 2.3% (Annex 14, T-1). Between 1945 and 1978, the crude birth rate fell from about 41 births per thousand population to 23.7 per thousand, while the crude death rate fell from about 20 deaths per thousand population to about 6.2 per thousand. Migration fluctuated widely during this period, but at present has little effect on the rate of growth. Although Korea has reduced the rate of growth of population from about 3.0% in 1960 to about 1.7% at present, the population problem is still serious. Korea has one of the highest densities of population in the world (about 377 persons per km<sup>2</sup>) and limited natural resources. Even to reach the Government of the Republic of Korea's (GROK) goals of a rate of growth of population of 1.6% by 1981 and 1.3% by 1986, which would mean a density of over 500 persons per km<sup>2</sup> in the year 2000, will require a considerable increase in efforts to control fertility.

### B. Population Growth

#### Recent Trends

1.02 The increase in population in the recent past has been the result of changes in fertility, mortality and migration patterns, and has affected the geographical distribution and age composition of the population. Between 1955 and 1978, fertility fell by about one half as the result of a reduction in the proportion of married women, and an increase in contraception and abortion. In 1955, the mean age of marriage for women was 20.5 years; by 1975, it had increased to 23.7 years. Married women are increasingly controlling their fertility by means of contraception and abortion. In 1964, only 9% of the married women of reproductive age were practicing contraception; by 1976 that number had increased to 44% (Annex 14, T-2). During the same period, the proportion of currently married women aged 20-44 years who ever had an abortion increased from 7% to 39%. The increased practice of contraception and abortion explains the 29% decline in marital fertility rates between 1960-65 and 1976.

1.03 Except during World War II and the Korean War, mortality has steadily declined in Korea since the 1920s: life expectancy at birth has increased from about 34 years in 1925 to about 66 years at present; the crude death rate has fallen from about 28 per thousand in 1930 to about 6 per thousand; and infant mortality has fallen from over 100 deaths per thousand live births in 1950 to about 38 per thousand live births. The fall in mortality is due to a rising standard of living, better nutrition, rapidly improving sanitary

conditions, and the increased availability and accessibility of health services. In 1975 about 62% of the population had access to clean water and about 61% lived in households connected to a sewer or other waste disposal system.

1.04 In the past, international migration had some effect on the rate of growth of the population. Before 1945, about 3 million Koreans emigrated to Manchuria and Japan. About half of them returned between 1945 and 1949. During the Korean War, about 350,000 people immigrated into the country, primarily from North Korea. After the war, international migration almost ceased. A law enacted in 1962 encouraged systematic emigration to help to reduce the rate of population growth. This policy, however, has had little impact; only about 46,000 Koreans leave the country each year. Since immigration is limited, net emigration thus reduces the rate of population growth by about one per 1,000 per year. Recent concern about a shortage of skilled labor may reduce the net emigration rate even further.

1.05 During the past 20 years, there has been rapid urbanization. In 1960, only 28% of the population lived in urban areas; by 1975, 48% of the population was urban. Concentration in large urban centers has also increased. In 1960 about 51% of the urban population lived in Seoul and Pusan; by 1975 the proportion had risen to 55%. Migration accounts for most of these changes. In the period 1971 to 1977, inter-provincial migration grew from 1.3 million to 2.2 million persons per year. Of the 2.2 million persons who changed province of residency in 1977, about 1.0 million moved to Seoul and Pusan, while about 0.6 million left those cities. This migration has mainly been due to the search for a better way of living: of the 2.2 million inter-provincial migrants in 1977, about 0.8 million migrated for reasons of occupation and about 0.3 million people moved because of marriage, education or other reasons. Expansion in the area of influence of each city, as well as natural increase, also contributed to the increase in the proportion of the population living in urban areas.

1.06 The last four population censuses show important changes in the age distribution of the population (Annex 14, T-3). In 1960, 42.9% of the population was aged 0-14 years; the proportion declined to 38.6% in 1975 as a consequence of the decline in fertility that began in 1962. During the same period, the proportion of the total population aged 65 and over increased from 3.3% to 3.5%. The population of working age increased from 53.6% to 58.4% thus reducing the age dependency ratio from 0.86 to 0.71.

#### Demographic Prospects and Implications

1.07 The Bureau of the Census has prepared three population growth projections based on three different assumptions about the success of the intensified population program that GROK is now planning. All three projections assume that life expectancy at birth will increase from about 66 years in 1975 to about 73 years in 2000 and that the net emigration will increase from 46,000 in 1975 to 74,000 in 1980, remaining constant thereafter. The first projection assumes that a net reproduction rate of one will be reached in

1985; the second that it will be reached in 1990; and the third that it will be reached in the year 2000. 1/ Details of these assumptions and the projections appear in Annex 14, T-4 and are summarized below.

PROJECTIONS OF TOTAL POPULATION UNDER THREE FERTILITY ASSUMPTIONS  
(In thousands)

Projection	1975 /a	1980	1990	2000
I	35,281	38,023	43,888	49,848
II	35,281	38,197	44,642	50,619
III	35,281	38,243	45,134	51,142

/a Based on 1975 Census data corrected for underenumeration and estimated for mid-year.

1.08 The difference between the highest and the lowest projection of the population in the year 2000 is only 2.6%. Although this difference is small, the changes in the age composition of the population under the three projections have important implications for the country's development. In 1975 there were 6.3 million persons between the ages 6 and 12, or of primary school age. If there is rapid decline of fertility (projection I) there will be 6.1 million primary school-age children by 2000; if the decline is slower (projection III) there will be 6.5 million. The population between ages 13 and 18, i.e., the population of secondary school age, would fall from 5.4 million in 1975 to about 4.9 million in 2000 under projection I or increase to 5.6 million under projection III. The different rates of fertility under the three projections would not be reflected in the size of the labor force until the year 2000, when the rapid decline (projection I) would result in a population aged 15-64 years of about one million less than there would be with a more gradual decline. Regardless of the rate of decline, density will increase from 357 persons per km<sup>2</sup> in 1975 to the very high figure of between 505 and 518 persons per km<sup>2</sup> by the year 2000. This is particularly serious in a country where density is already high and natural resources are limited.

1/ These projections are different from those prepared by IBRD and presented in the World Development Report, 1979 because of differences in base data and assumptions. The IBRD projections use as base population the enumerated population of the 1975 Census without correction, and begin with a low expectation of life at birth and total fertility rate. The Bureau of the Census projections utilize as base population the enumerated population of the 1975 Census corrected for underenumeration and the life expectancy and total fertility rate estimated from that Census. These projections also include an emigration assumption not considered in the Bank projection.

1.09 If there were no increase in family planning activities, fertility would remain close to its present level, and the population would be considerably larger in the year 2000 than any of the above projections predict. The family planning program has therefore to be stepped up sufficiently not only to reduce the total fertility rate but also to compensate for the effects of changes in age structure and a possible reduction in the average age of marriage. GROK's plan to strengthen its programs makes it likely that projection II may be realized.

### C. Health

1.10 Despite the reduction in mortality (para. 1.03), morbidity remains a serious problem. Although Korean health statistics are unreliable, surveys indicate that at least 15% of the population lose an average of 3.4 days of work per month because of illness, primarily among the rural population. Gastroenteritis and respiratory diseases are the most common, and are due to poor food hygiene, lack of potable water and deficient disposal of wastes. About 40% of the population surveyed suffered from parasite infestation. Cholera and malaria have practically disappeared, typhoid fever, diphtheria and poliomyelitis have been greatly reduced, while the incidence of tuberculosis and leprosy remained constant between 1968 and 1977.

1.11 There are differences between rural and urban areas. Most urban households have access to potable water and are connected to a waste disposal system, but only about 27% of rural households have access to potable water and only 30% have some form of sanitary waste disposal. The country has about 257 hospital units with about 27,000 beds, 202 health centers, 1,336 health subcenters and a large number of private clinics. It also has about 22,000 physicians and about 70,000 nurses. Although the rural population is about half of the total population, it is served only by about 13% of the country's health facilities and workers.

1.12 The deficiency of maternal and child health services is more striking. Korea lacks both traditional birth attendants and trained health workers. Of the 850,000 births in 1977, only about 40% were attended by medical personnel. Further, in 1977 only about 27,000 deliveries were actually attended by public health personnel; in 125,000 other cases, mothers were supplied with delivery kits for home use. Only 307,000 pregnant women registered for pre- or post-natal services. In 1975 only 41% of the population received BCG vaccine; less than 20% of children under five received measles vaccine and less than 80% received polio vaccine. A strengthening of the health services would reduce morbidity and mortality, especially in rural areas.

## II. POPULATION AND HEALTH POLICY, STRATEGY AND PROGRAMS

### A. Policy

#### Population

2.01 The need for a population policy in Korea was first realized after the Korean War. The 1955 Census indicated that fertility was high, and both public and private groups began to debate the consequences of rapid population growth for economic development. Further fuel was added to the debate by the 1960 Census and data on the rate of growth of gross national product for 1960, which indicated that population growth was offsetting the effects of economic growth. In 1961 the Planned Parenthood Federation of Korea (PPFK), a private organization, was established. In the same year GROK directed the Ministry of Health and Social Affairs (MOHSA) to provide family planning services and to support the efforts of private groups also providing family planning services. This led in 1962 to the adoption of a family planning program with the target of reducing the annual rate of population growth from 2.9% to 2.0% by 1966.

2.02 The services of the national family planning program were at first available only in urban clinics and the choice of contraceptive methods (condoms, foam and vasectomy) was limited. In 1964, family planning workers were assigned to all health subcenters in rural areas, mobile teams were set up to cover remote areas, and the intrauterine device (IUD) was offered as an alternative method. In 1966, GROK began to offer financial incentives to users. In 1968, mothers' clubs were organized by PPFK to promote family planning and to supply contraceptives, and the oral pill was made available. The Maternal and Child Health Law of 1973 broadened the medical justification for abortions. Female sterilization was made available in 1974.

2.03 Complementary international and internal migration policies were also adopted. In 1962, an Emigration Law was passed and in 1965 the Korean Overseas Development Corporation was set up to promote emigration. In 1964, GROK adopted a program designed to reduce the concentration of population in big cities, but it has not yet had much effect.

2.04 In 1976, GROK established a Population Policy Coordinating Committee under the chairmanship of the Deputy Prime Minister. Among the measures promoted by this Committee are population education programs for adults and out-of-school youth, tax exemptions for small families, priority in public housing and financial assistance for sterilized persons, lower delivery fees for the second child when it is the last, and legal changes which allow women to be heads of household and to inherit property.

2.05 Korea's population policy has thus become increasingly comprehensive and covers family planning, emigration, geographical distribution and incentives to lower fertility. It has been formulated so as to meet the country's needs while not arousing serious political opposition. The policy supports both public and private efforts and encourages utilization of all available medical resources.

## Health

2.06 Attempts to introduce preventive health services and modern medical institutions began at the end of the 19th century. After 1910 an active plan to improve medical services was formulated. A Bureau of Public Health, now the Ministry of Health and Social Affairs (MOHSA) was set up after liberation. The Korean War caused severe damage to the medical infrastructure. After the War, priority was given to the rebuilding of hospitals in large cities and to the introduction of sanitary regulations for foods, drugs and public facilities. It was not until the Health Center Law of 1962 was passed that efforts were made to provide health services for the rural population. Home visiting services were established to provide family planning, tuberculosis surveillance and, later, maternal and child health care, and led to the setting up of health subcenters to cover remote areas and serve as the headquarters for the fieldworkers.

2.07 An important aspect of health policy has been the training of medical personnel and the encouragement of private practice. The country now has about one physician per 1,680 people and one nurse per 520 people, but they are overwhelmingly concentrated in urban areas. Partly to correct maldistribution, GROK now offers incentives in the form of tax exemptions and low interest loans to physicians who practice in underserved areas. GROK also pays private physicians on a fee-for-service basis to provide family planning services for people referred to them by fieldworkers. In addition, the Social Security Law, enacted in 1963, and the Medical Insurance Law, enacted in 1976, provide assistance to employees, self-employed persons and those unable to pay or unemployed.

2.08 The Maternal and Child Health Law of 1973 is intended to fill a serious gap in the system by establishing better maternal and child health services but its implementation has been delayed by lack of funds. The Law also extended the medical grounds for legal abortion.

2.09 Although these laws have significantly improved health care, there is a need for further improvement. Services are still concentrated in urban areas and continue to be on curative rather than preventive and environmental approaches; existing facilities are underutilized; and there is no ongoing health education program to induce people to utilize the services available. The Fourth Five-Year Development Plan (1977-1981) recognizes these problems and sets the following objectives:

- (a) establishment of a health care delivery system through the development and expansion of low-cost health services for the urban poor and rural residents, and a more even geographical distribution of medical resources;
- (b) intensified public health measures, particularly in preventive medicine including disease control and MCH; and
- (c) better sanitation and water supply in rural areas and minimized industrial pollution.



2.10 In 1975 GROK established the Korean Health Development Institute (KHDI) to carry out research on the development of health delivery systems, the implementation and evaluation of demonstration projects and the demand for and supply of health services. Better knowledge of the health situation in Korea as well as the development of appropriate delivery systems will help the country to achieve the objectives of the Fourth Five-Year Development Plan and to formulate a more comprehensive national health policy (see Annex 15 for documentation). The work of KHDI has already led to an improvement of maternal and child health services and is expected soon to lead to the setting up of a low cost delivery system in rural areas. The knowledge acquired through the work of KHDI is constantly monitored for application on any new program or project of the GROK.

## B. Organization

2.11 The activities comprising the National Population Program are conducted by a number of public and private institutions, each of which may have a hand in the formulation of policy as well as its execution.

### Policy-Making Agencies

2.12 Population policy can in theory originate in any government agency; in practice, family planning and emigration policies originate in the Ministry of Health and Social Affairs (MOHSA); population distribution policies originate in the Ministry of Home Affairs (MOHA), the Ministry of Finance, the Ministry of National Defense, the Ministry of Construction and the First Minister without portfolio; policies about integrating family planning with the New Village Movement originate in MOHA; promotion of low fertility through tax exemptions originate with the Ministry of Finance; population education policies originate with the Ministry of Education; policies to promote family planning through information, education and communication originate in the Ministry of Culture and Information; and any change in laws related to population have to go through the Ministry of Justice.

2.13 Policy proposals are discussed, evaluated and approved by the Office of Planning and Coordination within the Office of the Prime Minister. Once policies are approved, they are translated into plans and related to programs and agencies by the Population Policy Section of the Economic Planning Board. Since 1976, to ensure coordination among implementing agencies, there has been a cabinet-level Population Policy Coordinating Committee, (para. 2.04 and Annex 14, C-1). Also since 1976 a Population Policy Secretariat within the Korean Development Institute has provided a link between population policies and socio economic plans.

### Executing Agencies

2.14 The agencies that originate population policy are in charge of executing those policies once they have been approved and converted into

programs and plans. Many of the policies do not imply provision of services to the public. Family planning does, and for this reason it is the agencies implementing the family planning services provision that have become most important in the field of population.

2.15 Ministry of Health and Social Affairs (MOHSA). Since the beginning of the population program, MOHSA has been the major agency in charge of implementing the family planning program (see Annex 14, C-2). Through its Bureau of Maternal and Child Health, MOHSA is responsible for planning and coordination and for the maintenance of the national service network. MOHSA licenses all health practitioners, supervises the manufacture and distribution of drugs and its approval is necessary before hospitals and clinics can serve the public. In addition, MOHSA provides technical support and guidance for the provincial health offices and rural health units which are administered by the provincial governors, who in turn are under the jurisdiction of the Ministry of Home Affairs (MOHA). MOHSA is also responsible for implementation of the emigration policy.

2.16 Provincial Governments/Ministry of Home Affairs (MOHA). MOHA is responsible for financing and operating, through the provincial and local governments, a network of provincial and municipal hospitals as well as the health centers and subcenters which provide family planning services for the population. The different Bureaus in each provincial government, including that of Health and Social Affairs, are under the Governor and report to their respective Ministries through the Governor (Annex 14, C-3). Technical support and guidance for each Bureau comes from its respective Ministry. Health and family planning services therefore come under the administrative control of MOHA, but receive technical guidance from MOHSA. Although it appears that such an arrangement could create problems of coordination, in practice it works fairly well.

2.17 Korean Institute of Family Planning (KIFP). KIFP is a semi-autonomous organization working under the supervision of MOHSA, responsible for: (a) all training in family planning; (b) technical guidance in family planning for health centers and subcenters; and (c) research and evaluation in the fields of family planning and demography. KIFP was recently assigned the task of retraining all fieldworkers (TB, MCH and family planning) as multipurpose workers. KIFP is at present concentrating on the improvement of service statistics since problems of misreporting are widely recognized. An organizational chart of KIFP appears in Annex 14, C-4.

2.18 Planned Parenthood Federation of Korea (PPFK). PPFK was established in 1961 as a voluntary non-profit organization and became an affiliate of the International Planned Parenthood Federation (IPPF) in the same year. PPFK, acting for the GROK, is responsible for all information, education and communication (IEC) activities in support of the family planning program and provides direct family planning services through 15 clinics in urban areas. Until 1969, PPFK was in charge of the mobile unit program; this program was then transferred to MOHSA, but will revert to PPFK in the near future. PPFK has been responsible for the development of the mothers' clubs, and trains

supervisors and managers for them. PPFK has been engaged in innovative activities such as introducing family planning to the Homeland Reserve Training Program, the Military Family Planning Program and the Industrial Site Program. An organizational chart of PPFK appears in Annex 14, C-5. In total, PPFK has about 351 workers, of whom 273 are in branch offices working with the provincial governments. Although a private organization, about 40% of its budget of \$2.5 million in 1978 came from the Government, another 40% came from IPPF and the rest from the United Nations Fund for Population Activities (UNFPA) and other sources.

2.19 New Village Movement (Saemaul Undong). The Saemaul Movement was initiated in 1970 by the Office of the President to promote greater industriousness, self-reliance, cooperation and a positive attitude towards self-improvement among the rural population. At first it emphasized environmental improvements such as village clean-up, sanitation, house renovations and road openings. The movement has become nationwide and now emphasizes income-generating projects. It attaches great importance to improving the status of women and promotes health and family planning. In 1977, the PPFK mothers' clubs were absorbed into the women's clubs of the Saemaul Movement.

#### C. Financing of Population Activities

2.20 The family planning budget for 1978 was W9.5 billion (US\$19.5 million), double the budget for 1976, demonstrating GROK's renewed concern over the rate of population growth. Since its inception, the program has received funds totalling W41 billion (about US\$102 million). The annual budget increased slowly from 1961 to 1965, then more rapidly from 1965 to 1969, less rapidly from 1969 to 1975 and then more than trebled between 1975 and 1978 (Annex 1).

2.21 On average, the Central Government has contributed about 50% of the family planning budget: about 19% coming from the local Governments, 21% from foreign sources and about 10% from miscellaneous revenues. The contribution of the National Government to the program in recent years has been more or less stable at around 0.18% of the total national budget and about 16% of the amount allocated for health in the national budget. This is considerably less than in 1966, when the corresponding figures were 0.3% and 30% respectively.

2.22 Foreign aid in the form of funds, technical assistance and supplies has been provided since the beginning of the program. IPPF began providing technical and financial support to PPFK in 1961. Since 1962 the Population Council has provided assistance for research, information, education and communication, and training. The United States Agency for International Development (USAID) has provided oral contraceptives, research funds and overseas training since 1967; the Swedish International Development Authority (SIDA) has provided a building for KIFP, audiovisual vehicles and equipment and oral contraceptives; UNFPA has supported special projects in industrial plants, low income areas and population education. The total volume of this overseas aid has been about US\$22 million.

2.23 It has been estimated that Korea spent about ₩331.3 billion on health in 1976. Of this amount, ₩34.4 billion was financed by the Central Government and ₩22.9 billion by the Provincial Governments. The remainder represented private consumer expenditures. The proportion of the national budget allocated to health, has fluctuated in the last sixteen years between 1.1% (1963) and 0.7% (1975). In 1978, the proportion rose to 1.1% (Annex 2). In the past, United Nations Children's Fund (UNICEF), World Health Organization (WHO), USAID and SIDA have supported health programs. The level of external assistance for health activities at present, however, is small.

#### D. Strategy

##### Overall Strategy and Evolution

2.24 The population program of Korea is one of the most comprehensive in the world. It includes the encouragement of emigration and the redistribution of population as well as the reduction of fertility by means of delayed marriage and an increase in the practice of contraception. Contraceptive practice is encouraged by measures which increase the supply as well as the demand for services. On the supply side, the program includes prescription and supply of contraceptive devices, making use of all the basic approaches to service delivery - clinical, outreach and inundation (widespread availability of supplies). It offers most known methods of contraception as well as abortion. The demand side is stimulated, not only by IEC, but also by incentives and regulations favoring small families, socioeconomic improvement, and by the use of community pressure. The program has had good results but the final goal is far from being achieved.

2.25 When the family planning program began in 1962, its approach was purely clinical. The outreach system was introduced in 1964, when family planning fieldworkers were assigned to health subcenters where they were responsible for information, motivation, the prescription and supply of contraceptive devices and referral for both IUD and male sterilization, as well as for follow up of IUD users. In the same year the first mobile units were set up to serve remote areas using the clinical and outreach approaches combined. Private physicians were trained to prescribe and supply contraceptive services (IUD insertion and vasectomy), and were paid by GROK on a fee-for-service basis. The inundation approach was first used in 1968 when mothers' clubs were formed with the object of motivating couples, referring them for services to authorized doctors, providing condoms, jellies and foam tablets and following up IUD acceptors. During the same year, the oral contraceptive was introduced as an alternative to the IUD, which was experiencing a high discontinuation rate. The oral contraceptive and the condom were later used for the "inundation" approach. In 1973, the grounds for legal abortion were extended and abortion became an accepted program method. In the following year female sterilization was introduced.

2.26 The next phase of the program, which began in 1974, was marked by the introduction of a series of regulations and incentives and disincentives, designed to induce people to have smaller families. This phase was facilitated by the creation of the Population Policy Coordinating Committee. GROK has thrown its full weight behind the program by making various socioeconomic benefits depend on family size.

2.27 The Government wherever feasible uses existing service networks as channels for the provision of family planning services. Integration of population activities into the activities of other sectors has been an objective of the Government for some time. Emigration, population distribution and measures to affect the demand for children and therefore for family planning have been assigned to relevant ministries. The mothers' clubs have been integrated into the womens' clubs of the Saemaul Movement, producing an integration of family planning with community development activities. From the start (1962), MOHSA was made responsible for the family planning program, and has provided both health and family planning services, but full integration in the sense of the use of multipurpose workers only now is beginning. This integration is expected to bring good results.

#### Family Planning Services and the Health Delivery System

2.28 As of 1978, health services were provided through 284 hospitals, (of which 72 were government), through 249 dispensaries, 202 health centers, 1,336 health subcenters and a large number of private clinics providing both western and oriental types of medical services. There are about 81,000 hospital beds in the country of which about 29,000 are in government hospitals and health centers and the remainder in private hospitals and clinics. The country also has eight maternal and child health (MCH) centers, each attached to a health center. Family planning services are provided in most government hospitals, health centers and subcenters, 15 family planning clinics run by PPFK, 11 mobile units and in a number of designated private hospitals and clinics.

2.29 The most comprehensive medical care is provided in the hospitals which are mainly in urban areas. The health centers, under the administrative jurisdiction of the Ministry of Home Affairs, are responsible for public health (inspection of restaurants, food processors and other public facilities; surveillance of water quality; communicable disease control; and pollution control); for providing personal health care and family planning services; and for supervising the health subcenters. Of the 202 health centers, about 60 serve urban and semi-urban areas and the rest are in rural areas (see map in Annex 14). The staffing pattern of the health centers varies according to population served, but all have physicians, public health technicians, dentists and a full array of paramedical personnel as well as administrators (Annex 3). As necessary the health center refers patients to provincial, regional, national, or university-affiliated hospitals for further treatment.

2.30 The health subcenters (1336 at present) serve the rural areas essentially as headquarters for the community health workers (fieldworkers), of whom there are three at each subcenter--one for tuberculosis (TB), one for

family planning and one for maternal and child health (MCH) care. The subcenters are also responsible for health education, immunization, the prevention and treatment of leprosy, venereal or other communicable diseases, the collection of health statistics, and guidance on environmental and food sanitation. For some of these activities the function of this subcenter is reduced to information, screening and referral rather than to direct action. In addition to the three fieldworkers, most subcenters are expected to have a private doctor on call and cover a population of 10,000 to 13,000 people. The community health workers are government employees, although generally without permanent appointments. Most of them are nurse aides (junior high school plus about one year of qualifying training), although some are nurses and midwives. The fieldworkers are unipurpose workers. The family planning worker provides contraceptive information, supplies non-clinical contraceptives and refers patients for clinical services. The MCH workers provides ante- and postnatal services for mothers, health care for infants, and either attends deliveries at home or provides delivery sets for mothers to use at home. The TB worker identifies suspected cases of tuberculosis, refers the patients to other facilities and provides treatment for patients at home. The family planning worker may refer patients for IUD insertion or for sterilization to government facilities or authorized private physicians and clinics; the TB worker may refer patients to the health center for further care. The MCH worker does not have a practical referral system because of the lack of public MCH facilities.

2.31 Health and family planning services are also provided privately by physicians and by midwifery clinics. These private services are usually available only in urban or semiurban areas, and at a high price, so they are beyond the reach of the rural population. Family planning services are also provided through 15 family planning clinics operated by PPFK and through 11 mobile units which reach remote rural areas lacking access to regular services. An effort has been made to utilize commercial distribution to dispense contraceptives, and there have been experiments in community-based distribution. The mothers' clubs are at present an important channel for the community distribution of contraceptives.

#### Information, Education and Communication

2.32 Although some health education is provided, there is, at present, no centralized health IEC program in Korea. There is, however, a very active population IEC program which has been organized by PPFK as an integral part of the national family planning program, and which uses both mass media and interpersonal approaches. A large number of films, slides, leaflets, posters, books and magazines have been produced by the PPFK, including the successful "Happy Home Magazine", which is distributed to all mothers' clubs (about 30,000 copies monthly). The interpersonal approach, however, has been the more important means for motivation. In 1968, when it was clear that family planning field workers were reaching only a small part of the population, PPFK began to organize mothers' clubs to disseminate family planning information. These clubs at first included only the better educated community leaders, but membership was later opened to all mothers. By the end of 1977, there were 27,000 clubs with a membership of 750,000 mothers. The clubs have helped to eliminate the social stigma formerly attached to family planning. One of

their most important activities has been the distribution of oral contraceptives. The IEC work of PPFK also reaches other special groups, such as the Homeland Reserve Forces, the regular army and civil service employees and the Enterprise Program, which focuses on motivating factory workers.

2.33 Although the IEC program has done much to legitimize family planning, it has yet to overcome the strong preference for boys among Korean families. This is particularly difficult in the rural areas, where about 72% of parents still say that they must have a son. This preference is deeply rooted in traditions which emphasize a patrilineal society and a male head of household system. One of PPFK's efforts has been the initiation of the Two Child Family Club, started in 1971, whose members are couples who have decided to have no more than two children regardless of sex.

### Training

2.34 The training of health personnel is the responsibility of the Ministry of Education as is the administration of the university hospitals attached to medical colleges. The role of MOHSA is limited to pre-service orientation and in-service training. In the 1960s, training for family planning was conducted mainly by PPFK and was directed basically to service providers, who were taught how to insert IUDs and perform sterilizations and how to provide information on contraception. Since 1970, KIFP has been in charge of the training of service providers as well as of supervisors, and of IEC workers as well as other government personnel only indirectly involved in family planning. Recently, KIFP was also given the task of transforming the unipurpose community health workers into multipurpose workers. This effort implies giving three different types of orientation courses for the three different types of workers so that all will be capable of performing the comprehensive services expected of them. KIFP also conducts research into the training needs and techniques, prepares training materials and evaluates the training.

### Research and Evaluation

2.35 The importance given to the population program made it essential to have a research organization exclusively devoted to population research, and in 1970, KIFP was given that responsibility. KIFP's current program includes evaluation by means of both service statistics and survey techniques; demographic analysis; and analysis of the social and economic correlates of fertility behavior. Health-related research is now in the hands of the Korean Health Development Institute (KHDI) which, since its establishment in 1975, has conducted research into the supply of and demand for health services, and into health delivery systems. It also conducts and evaluates demonstration projects. The Korean Development Institute (KDI) also carries out some research at the macro level in connection with its responsibilities as Population Policy Secretariat of the Population Policy Coordinating Committee.

#### E. Program Performance

2.36 The population program has been successful in promoting contraceptive practice, reducing fertility and increasing emigration. In 1964, only 9% of the married women of reproductive age were practicing contraception and 12% had ever practiced; by 1976 these proportions had increased to 44% and 63%, respectively. In 1964, only 7% of currently married women aged 20-44 years had ever had an abortion; by 1976 the proportion had increased to 39%. Most of these changes were due to the program, which supplied the services and stimulated the demand for them, as well as to socioeconomic development, which also increased the demand.

2.37 Between 1960 and 1976, the total fertility rate in Korea declined from about 6.0 to about 3.2 children per woman. Changes in the age and sex structure of the population during the period account for about 1% of the decline, and changes in the age of marriage for about 38%. The rest of the decline, 61%, has been due to changes in marital fertility, primarily attributable to the increased practice of contraception and abortion. It is estimated that between 1960 and 1975, about 3.5 million births were averted, half by contraception and half by abortion.

2.38 The primary program methods have been the IUD (accounting for about 45% of the total births averted by contraception) and the condom (accounting for about 28%). Oral contraceptives and female sterilization were not available in the earlier years. In the last few years, there has been a decline in the acceptance of IUDs, condoms and oral contraceptives, to some extent compensated for by the increased acceptance of sterilization and abortion. This may indicate that a plateau in acceptance has been reached and that there is a need for an intensified effort to attract more acceptors. The contribution of sterilization to the number of births averted is sure to increase, given the above trends.

2.39 Emigration is still too small to have an appreciable effect on the rate of growth of population, but some progress has been made. In 1965, there were only 1,000 emigrants; by 1973, there were 28,000; and in 1976, there were 48,000; the number went down to 44,000 in 1977, i.e., little more than one per thousand population.

#### F. Problem Areas and Program Constraints

2.40 Despite the impressive results of the population program in the past eighteen years, Korea still faces the prospect of an increase in population of 43% between 1975 and 2000, even if GROK's targets are attained. This will increase the density of population from 377 persons per km<sup>2</sup> in 1975 to over 500 in the year 2000. The present density, one of the highest in the world, is especially significant in a country with limited natural resources.



2.41 Even to achieve the Government objectives, the population program will have to be considerably strengthened because of demographic trends which will tend to increase the birth rate even if fertility were to remain constant. Chief among these trends is the rapid increase in the proportion of women of reproductive age which will take place in the next few years as a result of the post-Korean War baby boom. During the period 1975-1991 the population is expected to grow at an annual average rate of about 1.6%, while the number of women aged 15-44 is expected to increase at an average rate of 2.1%.

2.42 A second demographic factor that may affect the birth rate is the change in the mean age of marriage and in the proportions married. According to the 1975 census, Korea's mean age of marriage for females was about 23.7 years. The 1976 National Fertility and Family Planning Evaluation Survey found a mean age of marriage of 23.5 years. The difference may not be significant, but it suggests that the peak may have been passed. If this is so, the birth rate would increase even if fertility were to remain constant.

2.43 A third factor is emigration. Emigration increased steadily up to 1976 but went down in 1977. GROK's objectives are based on the assumption that emigration would increase from 44,000 in 1975 to 74,000 in 1980, and remain constant at that level until the end of the century. At present, however, Korea is experiencing a shortage of skilled labor which, together with the tendency of other countries to restrict immigration, may reduce the number of emigrants, and thus make it more difficult to achieve the planned growth rate.

2.44 There is also the possibility that, as suggested in para. 2.38 above, a new plateau in acceptance of family planning is being reached, and that a more intensive effort and new strategies will be needed to attract new acceptors. This trend is particularly noteworthy at a time when the number of women of reproductive age is rapidly increasing.

2.45 Contributing to the trend may be the still strong preference for sons among Korean families (see para. 2.33). The practice of contraception is still very limited among women with no sons, independent of their age or the number of children they have. Despite strong IEC efforts in the last few years to encourage couples to stop at two children regardless of their sex, 61% of the "ever" married women interviewed in the last fertility survey (1976), said that they "must" have at least one son.

2.46 If the planned population growth path is to be followed, family planning services must be made more effective and accessible and more emphasis must be laid on integrating services more closely with other social programs and on incentives toward smaller families. Improved access to services means a greater number of facilities, a better distribution of time among fieldworkers so they can reach more people, fewer constraints to clinic visits, different emphasis on different target groups in the population to be visited by workers, and better IEC activities to increase knowledge about facilities and motivate clients to visit them.

2.47 That there is room to make services more effective is suggested by the still high attrition rates of IUD and pill users (47% and 68% respectively in the first year), by the increasing proportion of people using less effective methods (4.2% in 1971 and 11.3% in 1976); by the increase in abortion; and finally by the high proportion of currently married women not practicing contraception and not having contact with program personnel. About 42.6% of the currently married women of childbearing age in the country wanting "no more children" are not current users of contraception, and about 24% have never practiced. Moreover, practice bears some relation to contacts with family planning personnel. About 53% of those practicing, but only 27% of "never" users, have had some contact with family planning fieldworkers.

2.48 The services of family planning workers can be made more effective by better training, better allocation of workers' time, the redirection of workers' efforts toward the groups in the population with the greatest need, changes in the target system, reduced turnover of workers, and better IEC. Most fieldworkers are nurse aides who have at least junior high school education, a nurse-aide training period of nine to twelve months and an introduction to the work of family planning. This training prepares them to do some motivational work, to supply clients with oral contraceptives, condoms and other methods and to refer clients to health facilities for IUD insertion or sterilization, but does not qualify them to provide elementary health services which are often demanded by clients or to deal with the side effects of contraception. Better medical back-up is therefore necessary.

2.49 A better allocation of workers' time is also needed. Each fieldworker has to serve a population of about 10,000 to 13,000 people dispersed in rural areas so that a high proportion of the working time is spent in traveling. A reduction of the area to be covered would increase the proportion of working time actually devoted to services. This reduction could be achieved by increasing the number of workers or, better still, by combining the functions of the present fieldworkers and reducing their area of work (see para. 2.55 below).

2.50 The concentration of workers' efforts on people with most need can also improve effectiveness. Under the present target system, workers confine their visits to the people who are most likely to accept -- those with many children and past users -- and pay too little attention to the young married couples with few or no children who offer the greatest potential for averting births.

2.51 The present contraceptive target system, under which a target figure for each contraceptive has to be achieved, leads workers to recommend a method in which they are short of the target which is not necessarily that preferred by the client. It would be better to assign points to each method according to its long range effectiveness, and set each worker a target of total points rather than a target for each method.

2.52 The turnover of community health workers is now estimated to be about 30% per year. This high turnover implies a waste of training and prevents the workers from gaining experience and getting to know the

people in their area. It is due in part to marriage and emigration, but also, and perhaps to a greater extent, to the fact that their jobs are only temporary, with no opportunities for advancement, and carry low salaries and little prestige. GROK has been considering making the jobs permanent, but has been deterred so far by the budgetary implications.

2.53 Improved IEC is also needed to improve effectiveness and to change the attitudes of people away from son preference. Unfounded rumors about the side effects of contraceptives and low continuation rates among well motivated couples can both be reduced by better interpersonal and mass communication.

2.54 As mentioned in para. 2.27 above, the Government is alert to the possibility that ministries and agencies not primarily concerned with family planning can be used as channels for the provision of family planning information, and possibly also services.

2.55 The most obvious application of this principle is in the health sector, since the skills required for family planning and health are closely related and people develop a trust in health workers which helps to make their family planning advice acceptable. As far as management and facilities are concerned, family planning and health have been combined under MOHSA since the beginning of the program in 1962. At the service level, however, they are still separate. As mentioned in para. 2.30 above, there are three fieldworkers for each subcenter serving the rural areas. All three workers are at least nurse-aides, but many are licensed nurses or midwives. All three workers cover the same area and the same population and spend much of their time traveling. MOHSA wants to make each one a multipurpose worker providing all three services in an area about one third of the size they now actually cover. Some of the workers have already been retrained. Full implementation of this approach, however, awaits final approval.

2.56 Integration of family planning services with health including nutrition services would be most beneficial. Many hospitals already have a postpartum program, but they are mainly in the urban areas. Moreover, in the rural areas, about 85% of pregnant women deliver their children at home, and only 20% of the births in rural areas are attended by qualified health personnel. Furthermore, there are no traditional birth attendants in Korea as in many other countries. An opportunity is therefore being lost to provide postpartum family planning services to most of the rural population. The use of multipurpose workers, and added emphasis on help by those workers in deliveries, either in hospitals or at home, would increase the opportunities to offer family planning services at the time when they are most likely to be acceptable.

2.57 Family planning education is already included in the activities of day care centers. MOHSA introduced a program of day care centers in 1970 with the help of CARE and the World Food Program, with the objective of providing food for pre-school children, and instruction in nutrition and family planning for their mothers. At present there are about 650 day care centers. Most of them provide these services and at the same time offer

mothers the opportunity to engage in economically productive activities. A preliminary study suggests that mothers who receive family planning education at the day care centers attended by their children report a higher rate of contraceptive practice than those attending centers that do not provide it.

2.58 As noted in para. 2.19, the mothers' clubs have been merged with the women's clubs of the Saemaul Movement. Family planning services are also being combined with the health services provided for the military, industrial workers and government employees.

2.59 Finally, there is a need for stronger incentives and disincentives to promote the small family norm and for still greater efforts to raise the social and economic status of women and to encourage further delays in marriage. GROK has gone a long way in these directions through taxation, housing preferences and inheritance laws, but more could be done to finance costs of education for families with few children, to offer community incentives within the Saemaul Movement for villages achieving a target reduction of birth rate and to provide retirement benefits for families with few children.

### III. THE PROJECT

#### A. Project Concept and Objectives

##### Project Concept

3.01 This project is designed to assist Korea in its efforts to reduce the rate of growth of population and, at the same time, to improve family health, reduce maternal mortality, and reduce infant and child mortality and morbidity. Essential to the project design is the outreach of service delivery into the community, utilizing the "at risk" approach, which allows special attention to those in need within a framework of improved health care for all. The project is based on the premises that: a reduction of infant mortality will reduce fertility; there are advantages in delivering family planning services in conjunction with health services, especially maternal and child health services; and there is a higher rate of contraceptive practice among women who receive instruction in nutrition and family planning in day care centers which their children attend. The project design also takes into account the need to make these centers more effective and accessible, and the need for integration of family planning services with other social services. The project has been designed not only to increase the supply of services, but also to improve the demand for those services.

##### Project Objectives

3.02 The project will assist GROK to reach its objective of reducing the birth rate from 24.3 in 1976 to 23.9 by 1981, and 22.9 by 1986. To do this, it is necessary to increase the number of current users of contraceptives from 2.0 million in 1976 to 3.1 million in 1981 and 3.9 million

in 1986. The number of births to be averted annually has to increase from 0.4 million in 1975 to 0.7 million in 1981 and 0.8 million in 1986. The project will also help to increase the rate of safe deliveries from the present 40% to 86% in 1982 and 100% in 1986; to reduce maternal mortality from 6.3 deaths per 10,000 births in 1975 to 3.0 in 1986; and to reduce infant mortality from 38 deaths per 1,000 live births in 1976 to 14 in 1986. These objectives will be difficult, but not impossible to achieve, given the strong commitment of GROK.

#### B. Project Composition

3.03 In summary, the project includes:

(a) Strengthening and Expanding the Health and Family Planning Delivery System by:

- i. Converting unipurpose fieldworkers into multipurpose fieldworkers and utilizing the "at risk" approach to MCH care enabling the workers to attend uncomplicated cases in the community and to refer "at risk" cases to back-up facilities;
- ii. Constructing, furnishing and equipping 91 MCH/FP centers, each attached to an existing health center, and upgrading those health centers; a day care center will also be added to each of 68 of these centers;
- iii. Constructing, furnishing and equipping 11 family planning-cum-MCH clinics to replace premises now rented by PPFK;
- iv. Providing 13 new mobile family planning units (replacing existing ones) to provide services and IEC activities in areas without fixed facilities or staff; and
- v. Providing 68 four-wheel drive vehicles to transport MCH patients to and from MCH/FP centers.

(b) Strengthening and Expanding the Training of Health and Family Planning Staff by:

- i. Constructing, furnishing and equipping additional training facilities at the Korean Institute for Family Planning (KIFP);

- ii. Providing the incremental costs of retraining about 4,000 TB, MCH and family planning fieldworkers and training about 4,000 recruits as multipurpose workers, and of training all these workers in midwifery;
- iii. Providing the incremental costs of training industrial social workers, provincial family planning supervisors, instructors, civic organization representatives, and other groups of workers in family planning;
- iv. Providing funds for the training courses of IEC personnel abroad in communication techniques and the maintenance of equipment;
- v. Providing funds for training health personnel in the use and maintenance of IEC equipment;
- vi. Providing facilities and equipment for the production and reproduction of teaching materials for family planning and midwifery training; and
- vii. Providing three vehicles to transport students and instructors for the above training courses.

(c) Strengthening and Expanding Information, Education and Communication (IEC) Activities in Health and Family Planning by:

- i. Providing video tape players for each of the 91 new MCH/FP centers, each of the obstetric departments of 56 general hospitals and each of the 11 PPFK family planning clinics for health and family planning education programs to be shown in patient waiting areas;
- ii. Providing film and slide projectors for each of the health centers (202) for showing films and slides to groups such as women's clubs and agricultural clubs;
- iii. Providing cassette tape recorder/players to enable each health center to produce its own programs;
- iv. Providing pamphlets dealing with family health for distribution to fieldworkers and clinic clients;
- v. Providing a one-month study tour, plus salary support through the project period, for an IEC Coordinator at MOHSA who, in addition to being in charge of the IEC component of the project, will help develop mass media activities such as radio and TV spots, plays for TV, press advertising and cassette tape programs;

- vi. Providing IEC equipment and materials for each of the 13 mobile family planning units;
  - vii. Providing PPFK with a video production facility, film to tape transfer, video cameras and players and other video equipment to provide programs for the video sets installed in clinics, hospitals and mobile vans;
  - viii. Providing PPFK with two producers of video programs and sound film slide sets plus one cameraman, one editor and one audiovisual technician to handle the increased output;
  - ix. Providing funds to subcontract the production of materials for which PPFK will not have production capacity;
  - x. Providing a research officer and one assistant and funds to pretest, test and evaluate IEC materials for MOHSA and PPFK;
  - xi. Providing PPFK with an officer who will administer the PPFK section of the Bank-aided project as well as the IEC elements; and
  - xii. Constructing, furnishing and equipping additional office and production space for the increased IEC activities of PPFK.
- (d) Strengthening and Expanding Evaluation and Research by Providing Funds for:
- i. Setting up a system for reporting on the work of the MCH/FP centers, and the tabulation and analysis of the resultant data;
  - ii. Evaluating the midwifery training program of the fieldworkers; and
  - iii. Evaluating health and family planning activities undertaken under the project.
- (e) Strengthening Project Implementation Capacity by:
- Providing MOHSA with additional staff, equipment, vehicles and per diem to plan, execute and supervise the project.

### C. Project Description

#### Health and Family Planning Delivery System

3.04 To help make health and family planning services more effective and accessible (paras. 2.48-2.55), the project will help GROK to reorganize the community health workers and to increase the number of MCH/FP centers from 8 to 99. All TB, MCH and FP community health workers will be retrained as multipurpose workers, each of whom will cover only about one third (3,500) of the people now covered by the present unipurpose workers. In a second stage, those workers not yet trained in midwifery will be trained to assist in normal deliveries at home and to utilize the risk approach in MCH care (Annex 4) to identify and refer risk cases to the newly established MCH/FP centers. Each worker will therefore: (a) be in charge of surveillance, control and treatment of TB cases among a population of about 3,500 people; (b) provide pre- and postnatal care for about 95 pregnant women per year, of whom about 30 will be referred to the MCH/FP center for delivery as risk cases, and the rest will require delivery assistance at home; (c) provide infant and child health services for about 470 children; and (d) provide family planning services, including motivational work, contraceptive supply and referral for IUD insertions and sterilizations to about 500 married women of child-bearing age. As a result of these changes, the fieldworkers will spend less time traveling and more time providing services. The wider range of services each worker will provide will give her a higher standing in the community. During negotiations the GROK gave assurances to the effect that it shall ensure that all community health workers will be offered terms of remuneration and conditions of service mutually satisfactory to the GROK and the Bank (see para. 2.52 above). The project will also help to strengthen the management and supervisory capability of the health and family planning delivery system. At the provincial level the Government will appoint an additional supervisor in the Bureau of Health Services. The provincial supervisors will be responsible to oversee the activities of the health centers. At the health centers, the Government will appoint an additional supervisor to oversee the activities of the multipurpose workers and also the activities of the MCH center. Initially these additional supervisors will concentrate on the development of MCH services using the "at risk" approach. Later on they will be converted into multipurpose supervisors.

3.05 Of the 91 new MCH/FP centers to be provided, 68 will be of type A and 23 of type B (see map in Annex 14). Type A centers will have an area of about 1,000 m<sup>2</sup> and serve between 100,000 and 200,000 people (Annex 5). They will have 16 maternity beds. The staff will consist of 2 midwives, 4 nurses, 8 nurse-aides, a clerical officer, a cook, a janitor, a guard and a driver. There will also be a private physician on call. It is expected that each type A center will handle about 1600 deliveries per year, or about 40% of the deliveries taking place in its coverage area. Because of the extended area of coverage, the unavailability of public transportation and the fact that most patients will be "at risk" patients, each type A center will have a



four-wheel drive vehicle to transport patients. Type B centers (Annex 5) will have only 6 maternity beds and an area of about 800 m<sup>2</sup>, and are expected to attend about 600 deliveries per year, or 40% of the deliveries expected among a population of 50,000 to 100,000. The staffing for a type B center will be a midwife, 2 nurses, 4 nurse aides, a clerical officer, a cook, a janitor and a guard. There will also be a private physician on call. During negotiations the GROK gave assurances that it will finance the operational expenditures of the MCH/FP centers.

3.06 Each MCH/FP center will be attached to an existing health center which will be upgraded, and will be under the direction of the health center Director. The centers will provide pre- and postnatal care, delivery services, infant and child care and family planning services. About three-fourths of the cases to be attended in the MCH/FP centers are expected to be risk cases and the rest normal. The centers will be located in the administrative centers of the Guns (counties) to facilitate communication with the villages (see Annex 6). Land will be acquired by MOHSA. All MCH/FP centers will have examination rooms for mothers and children, labor and delivery rooms, ward rooms, space for IEC activities, living quarters for midwives, and administrative offices. In 68 locations (not all in type A centers) where no other day care facilities exist, the MCH/FP center will also include a small day care center where the integrated day care center approach (Annex 7) will be utilized. The day care centers will be equipped, staffed and operated by the local community and will essentially be independent of the MCH/FP centers. During negotiations, the GROK gave assurances that the sites for the MCH/FP centers will be of adequate size (at least 1,000 m<sup>2</sup>).

3.07 To improve the health and family planning delivery system, the project will also provide for the construction, furnishing and equipping of 11 buildings for family planning clinics now operated by PPFK in rented premises (Annex 8). These clinics will provide delivery services, thus facilitating the postpartum approach to family planning. They will be located in provincial capitals and serve the poorer quarters of these cities. Each will have a gross area of about 1,100 m<sup>2</sup> and have a 12-bed delivery ward. The four clinics already owned by PPFK and the 11 clinics to be replaced will enable about 65,000 vasectomies and 71,000 tubal ligations to be performed and about 30,000 IUDs to be inserted during the project period. They will also be able to attend about 1200 deliveries per year. The clinics will be staffed by one doctor, one head nurse, two nurse-aides, two midwives and five other staff. Direct operational financing will not be necessary because GROK will reimburse the clinics for family planning services on a fee-per-case basis, and deliveries will either be paid for by clients or by the medical insurance programs. PPFK expects the provincial governments to donate land for the clinics. During negotiations the GROK gave assurances that sites of suitable size (at least 1,000 m<sup>2</sup>) and location for the PPFK clinics will be acquired before July 31, 1980.

3.08 Until recently GROK was operating 11 mobile units to provide family planning services in isolated areas. These units have now been disbanded for

lack of funds to replace the vehicles. The project will increase the number of mobile units to 13 and provide them with new vehicles and equipment. These units will provide family planning services in remote areas and will be simultaneously utilized for IEC activities. As the operational cost of 11 of these units has until recently been borne by the Government, their future operation will imply additional expenditures only for two of the units. During negotiations the GROK gave assurances that it will continue to finance the operation of the units. To ensure proper maintenance of the mobile units as well as of other vehicles provided in the project, the GROK gave assurances that the vehicles will be properly maintained and used only for project purposes and that a system for monitoring their use and maintenance will be set up.

### Training Activities for Health and Family Planning

3.09 The project supports the retraining of community health workers to become multipurpose workers, as the first step in strengthening the health and family planning program. The training will be conducted by KIFP and will give the workers the professional knowledge, skills and attitude on MCH, FP and tuberculosis necessary for the concept of integrated health services and for provision of quality care. The basic course will last two weeks and expose workers, depending on their needs and past field experience, to concepts of general administration, the "new village" movement, health education, maternal and child health, family planning, tuberculosis control, control of parasites, venereal disease and leprosy, and environmental health. The basic course will be given to all present workers (about 4,000) and to new recruits (also about 4,000). Following the basic course, the workers will be given continuous on-the-job training by provincial and health center supervisors. In addition, one-week refresher courses will be offered every year and will be attended by about 3,600 persons during the project period.

3.10 The object of the midwifery course (para. 3.04) is to provide the multipurpose workers with the skills necessary to assist in normal home deliveries and to identify and refer to the MCH/FP centers, cases considered to be at risk. The course will last four months and consist of both theoretical and practical training. The theoretical part of the course will be given at universities selected by MOHSA. It will cover topics such as the physiology of human reproduction, normal deliveries, home delivery procedures, neonatal care and the identification of cases at risk. Practical training will be provided in the field and at 18 medical institutions selected by MOHSA. The institutions will be selected based on the following criteria: (a) either a general hospital or a maternity hospital; (b) providing high quality obstetric services as well as general medical and health care; and (c) handling an adequate number of deliveries. The course emphasizes practical training and will be given under close professional supervision. At the end of the course the workers will be expected to assist in normal deliveries and care for the newborn. During negotiations the GROK gave assurances that MOHSA will enter into contracts with universities and hospitals to carry out this training.

3.11 The project also supports the training in family planning of other workers, from inside and outside the health services. These courses are for industrial site social workers (16 one-week courses); provincial family planning supervisors (8 one-week courses); and health center senior administrative management and clinical workers (25 one- to twelve-week courses); instructors (24 one-week courses); and general orientation (232 one-day courses). Theoretical training will be provided at the Korean Institute for Family Planning (KIFP). Practical training will be provided at hospitals designated by KIFP. The content of the courses ranges from IUD insertion for clinical workers to general knowledge about population and family planning for the personnel of civic organizations. The project will support the construction, furnishing and equipping of additional training facilities (Annex 9), the production of materials, and the incremental costs of the training.

3.12 Each health and MCH/FP center and obstetrical department of a general hospital will assign one of its workers to be in charge of all IEC equipment and activities. These workers (about 400 in eight batches) will participate in a five-day course in the principles of IEC, and the use and routine maintenance of IEC equipment. This course will be carried out jointly by the KIFP and PPFK. The project provides instructor fees, travel expenses and per diem for the trainees.

3.13 The project provides funds for a two-month course abroad, in video tape recording program production and the use and maintenance of equipment, for thirteen audiovisual aid workers in the mobile units and five new members of the PPFK production staff.

#### Information, Education and Communication Activities in Health and Family Planning

3.14 PPFK has hitherto been solely responsible for the IEC aspects of the family planning program. The IEC aspects of the health services have been neglected. To ensure that people take advantage of the health and family planning services, MOHSA will have to carry out some IEC activities of its own. The project will provide for a media officer in MOHSA in charge of the whole IEC component of the project. He will coordinate all IEC activities for health and family planning; plan and supervise production; and write scripts in collaboration with the media producers and health directors. He will also supervise the distribution and use of materials, and monitor the use of equipment at health centers, MCH/FP centers and hospitals. The project will include the production of 20 radio spots; 5 television spots to be used once monthly during the project period; 5 plays for television; and 3 color films with 11 copies for use in Seoul, Pusan and the 9 provinces. MOHSA will also produce cassette tape programs (five) and newspaper ads to be run five times a year in five different dailies. MOHSA will establish a library of IEC materials, circulate a catalogue among health centers, subcenters and hospitals, and make the materials available to these and other institutions.

3.15 The project will also provide, through MOHSA: (a) video tape players as well as cassette recorders for all MCH/FP centers and OB/GYN departments of general hospitals; (b) film and slide projectors in the 202 health centers; and (c) booklets and pamphlets to be distributed to field-workers and clients in the rural areas. These materials will be utilized for educational programs directed to clients in waiting rooms and to visitors and groups such as mothers' clubs, agricultural clubs, village leaders and field-workers. Materials for these programs will be produced by MOHSA in collaboration with the private sector and PPFK, as well as by health educators in the health centers. These programs will focus on health including family planning messages.

3.16 The IEC program of PPFK is of good quality, but has been restricted by shortages of funds and staff. The project will support PPFK's work in four respects: (a) expanding production capacity by constructing, furnishing and equipping an IEC production studio with video production capacity attached to PPFK headquarters, which will produce materials for MOHSA as well as for PPFK, (Annex 9), and by staffing this studio with a production manager, two producers responsible for planning and script writing, one cameraman, one editor and one audiovisual technician; (b) providing full audiovisual equipment for each of the new mobile family planning units; (c) providing each of PPFK's 11 family planning clinics with video tape players. With these inputs, PPFK will be able to produce health education, nutrition education and other materials in support of the health and family planning programs, and to bring these materials to the community through MOHSA's health centers and PPFK's family planning clinics and mobile units; and (d) covering the cost of materials, staff and other items needed to pre-test, test and evaluate its own materials as well as those produced by MOHSA. PPFK will thus be able to improve its materials, which have hitherto not been systematically evaluated.

3.17 As it is important that all health and family planning workers should be familiar with modern IEC techniques and the use and maintenance of equipment, the project will provide funds for equipment for the production of training IEC materials at KIFP, for which part of the extension of the KIFP buildings will be made available. Duplicating equipment will be provided and a photo laboratory will be renovated to permit the processing of still pictures and color slides. KIFP will collaborate with PPFK in the training of health staff in the use and maintenance of IEC equipment.

#### Research and Evaluation

3.18 Research and evaluation are conducted by KIFP for family planning and by KHDI for health. There are, however, activities directly related to the project that need further support. The project will therefore include funds to support: (a) the setting up of a reporting system for the new MCH/FP centers, including data collection, tabulation and reporting; (b) evaluation of the midwifery training of multipurpose workers; and (c) full evaluation of the results of the health and family planning activities undertaken under the project. MOHSA has agreed to request proposals from at least three research institutions (public and private) to carry out each of these research projects

and to award contracts on the basis of quality and cost of the proposals. These proposals will be awarded on the recommendation, satisfactory to the Bank, of a Project Advisory Committee (para. 3.19). During negotiations, the GROK gave assurances that this procedure will be followed.

#### Project Implementation Capacity

3.19 The MCH Bureau of MOHSA will coordinate the project. The Director-General of the MCH Bureau will be Project Director, and the Division Chief of the MCH unit will be the Executive Project Director. The MCH unit will be strengthened to enable it to undertake its project responsibilities, and the project includes funds for salaries, vehicles, equipment and per diem for this purpose. The IEC, training and construction components will be coordinated by suitably trained and experienced persons. In addition, there will be an accountant. The Project Director will be assisted by a Project Advisory Committee, consisting of representatives of MOHSA, PPFK and KIFP as well as of universities, the Korean Development Institute and KHDI. The Project Advisory Committee will: (a) advise the Project Director in matters of policy, ongoing research, coordination and implementation of MCH and population programs; and (b) review research proposals (see para. 3.18 above). During negotiations, the GROK gave assurances that the Project Advisory Committee (PAC) will be activated by March 1, 1980. The buildings to be constructed under the project will be designed by executive architects appointed by the provincial governments, KIFP and PPFK. The executive architects will prepare working drawings and bidding and contract documents, help to invite and evaluate bids, and supervise construction.

### IV. PROJECT COST, FINANCING, IMPLEMENTATION AND RISK

#### A. Cost

4.01 The total project cost, including contingencies, is estimated at US\$93.4 million. The foreign exchange component is estimated at US\$37.2 million, or about 40% of total project cost. Capital investment accounts for about 91% of the base cost; the incremental operating costs of the project for training, IEC, research and evaluation and project management account for the rest. The cost estimates by expenditure category are summarized in Table 1 and details are given in Annex 10.

Table 1

ESTIMATED PROJECT COST BY DISBURSEMENT CATEGORY

Category	W000,000s			US\$000s			% of FEC
	Local	Foreign	Total	Local	Foreign	Total	
Construction	14,447	9,631	24,078	29,788	19,858	49,646	40
Furniture	627	513	1,140	1,293	1,057	2,350	45
Equipment	332	2,985	3,317	683	6,157	6,840	90
Professional fees	1,316	-	1,316	2,713	-	2,713	-
Special equipment	-	680	680	-	1,403	1,403	100
Vehicles	222	222	444	457	457	914	50
Fellowships	-	33	33	-	68	68	100
Incremental operating cost	3,060	-	3,060	6,309	-	6,309	-
Total Base Cost	20,004	14,064	34,068	41,243	29,000	70,243	41
Physical contingencies	1,694	1,407	3,101	3,493	2,902	6,395	
Price contingencies	5,562	2,549	8,111	11,467	5,255	16,722	
Total Contingencies	7,256	3,956	11,212	14,960	8,157	23,117	35
Total Project Cost	27,260	18,020	45,280	56,203	37,157	93,360	40

4.02 The largest share (87%) of the base cost is allocated to the expansion and improvement of MCH and family planning services. About 7% of base cost is allocated to training, 4% to IEC, less than 1% to research and evaluation, and less than 1% to project administration. The breakdown by functional categories is given in Table 2.

Table 2

ESTIMATED PROJECT COST BY FUNCTIONAL CATEGORY

Category	W000,000s			US\$000s			% of FEC
	Local	Foreign	Total	Local	Foreign	Total	
Service delivery	16,456	13,088	29,544	33,928	26,988	60,916	44
IEC	861	580	1,441	1,775	1,197	2,972	40
Training	2,161	382	2,543	4,455	787	5,242	15
Research and evaluation	291	-	291	600	-	600	-
Administration	235	14	249	485	28	513	5
Total Base Cost	20,004	14,064	34,068	41,243	29,000	70,243	41
Contingencies	7,256	3,956	11,212	14,960	8,157	23,117	35
Total Project Cost	27,260	18,020	45,280	56,203	37,157	93,360	40

4.03 The cost estimates are based on April 1979 prices. The foreign exchange component of the project is estimated at 40% for construction, 45% for furniture, 50% for vehicles, 90% for equipment and 100% for special equipment and training abroad. Local training, IEC production, research and evaluation and project implementation are not likely to require foreign exchange.

4.04 The contingency allowance of US\$23.1 million includes: (a) physical contingencies, estimated at 10% of base civil works costs, furniture, equipment, vehicles and professional fees; and (b) price contingencies estimated at about 22% of the base cost plus physical contingencies. Price contingencies were calculated on the basis of the project expenditure schedule and of an assumed rate of foreign price increases of 7% per year for civil works and 6% per year on other costs, and local price increases of 14% in the first half of 1979, 10% in the second half of 1979, 9% in 1980 and 8% thereafter.

4.05 In addition to the small incremental recurrent costs included in the cost of the project, there are incremental recurrent costs associated with the operation of the facilities to be built under the project. These costs amount to about US\$33 million for the period 1980-1983. In the last year of the project (1983) they will be equivalent to 13.3% of the 1979 central government health budget, or about 7% of the total central and provincial health budgets. The breakdown of these incremental recurrent costs, including contingencies, is as follows:

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	(In thousands of US dollars)				
	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>Total</u>
Incremental Recurrent Expenditures Arising from the Project	61	4,278	14,455	14,455	33,249
Price Contingency	<u>8</u> <u>69</u>	<u>1,009</u> <u>5,287</u>	<u>4,838</u> <u>19,293</u>	<u>6,382</u> <u>20,837</u>	<u>12,237</u> <u>45,486</u>

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GROK has agreed to finance the incremental recurrent costs of the operation of the project facilities and has confirmed this commitment during negotiations.

#### B. Proposed Financing

4.06 The total project cost (US\$93.4 million) is to be financed by an IBRD loan of US\$30.0 million equivalent and a GROK contribution of US\$63.4 million equivalent. The loan will be at an annual rate of interest of 7.95%

for a period of 17 years, including a grace period of 4 years. The loan will finance part of the foreign exchange component of the project, while the GROK contribution will finance the rest of the foreign exchange component and the local costs.

### C. Disbursements

4.07 The proposed loan would be disbursed to meet:

- (a) 32% of the cost of civil works;
- (b) 43% of the cost of furniture;
- (c) 100% of the c.i.f. costs of directly imported equipment, vehicles and materials;
- (d) 100% of the ex-factory price of locally manufactured equipment and vehicles;
- (e) 65% of the cost of imported and locally procured equipment, vehicles and materials; and
- (f) 100% of the cost of training abroad.

The estimated disbursement schedule is shown in Annex 11.

### D. Project Implementation

4.08 A number of public and private agencies will take part in the implementation of the project (Annex 12). The Bureau of MCH at MOHSA, KIFP and PPFK will have primary responsibility, but other MOHSA Bureaus, the Provincial Governments, the Office of Supply of the Republic of Korea (OSROK), universities and other agencies will have roles to play.

#### Project Management

4.09 The MCH Division of the Bureau of MCH in MOHSA, as managing agency for the project, will: (a) define the policies and procedures to be followed in the execution of the project; (b) prepare a program for the execution of the activities by the different agencies; (c) issue guidelines for project implementation; (d) coordinate the activities of the different agencies; (e) monitor the progress of the project and submit quarterly progress reports to the Bank; (f) enter into contracts as necessary for the execution of the project; (g) establish an accounting system and maintain the accounts of the project; and (h) authorize payments to contractors. To carry out these activities, the MCH section of the Bureau of MCH at MOHSA will be strengthened by the appointment of a construction coordinator, a training coordinator, an IEC coordinator, an accountant, and architectural consultants as necessary.



4.10 The Director of KIFP, the Secretary General of PPFK, and the provincial Bureaus of Health and Social Affairs will be responsible for project activities within their own jurisdictions and will coordinate their activities with the Project Director and report to him on the progress of their own activities. The Director of KIFP and the Secretary General of PPFK will be members of the Project Advisory Committee to be set up to advise the Project Director (see para. 3.19).

#### Construction of Physical Facilities

4.11 The construction of physical facilities will be the responsibility of the Provincial Governments, PPFK and KIFP under the direction of MOHSA. MOHSA will: (a) prepare a program for the planning, tendering, contracting, constructing and commissioning of the facilities; (b) issue guidelines to the provinces, PPFK and KIFP on these matters; (c) approve sites for the construction of MCH/FP centers; (d) prepare prototype designs and preliminary specifications for the MCH/FP centers and the upgrading of health centers; (e) approve final designs and specifications; (f) approve tender documents and bid evaluations; (g) approve requests for payments to contractors; and (h) monitor the progress of construction.

4.12 PPFK, KIFP and the provinces will: (a) enter into contracts with the Executive Architects who will prepare preliminary designs and tender documents, assist in inviting and evaluating tenders and supervise construction; (b) except KIFP, select and acquire the sites for the construction of MCH/FP centers and family planning clinics; (c) prepare preliminary designs and tender documents for the construction of MCH/FP centers and the upgrading of health centers, family planning clinics, additional facilities for training in the KIFP building and additional facilities for IEC production in the PPFK building; (d) prepare final designs and documents; (e) invite tenders for construction from prequalified domestic and foreign firms; (f) evaluate bids and recommend the award of contracts; (g) enter into construction contracts; (h) continuously supervise the progress of construction; and (i) submit quarterly progress reports to the Project Director.

#### Acquisition of Furniture, Equipment and Vehicles

4.13 MOHSA, KIFP, PPFK and the provincial governments will prepare preliminary lists and specifications of furniture, equipment and vehicles for the approval of the Project Director. The final lists and specifications will then be sent to OSROK, which will invite tenders, evaluate bids, award contracts and receive and distribute the furniture, equipment and vehicles.

#### IEC

4.14 MOHSA will coordinate project IEC activities and will also: (a) determine the distribution of the IEC equipment provided under the project; (b) prepare a program for the design, production, distribution and utilization of IEC materials; (c) design some of the materials; (d) contract for

the production and distribution of IEC materials; (e) request PPFK to design, produce and distribute IEC materials; (f) collaborate with PPFK in the pretesting, testing and evaluation of IEC materials; (g) monitor the use and effects of IEC materials as well as the use and maintenance of IEC equipment; and (h) set up a library of IEC materials to be made available to other institutions.

4.15 PPFK, as the agency responsible for IEC in family planning, will: (a) design, produce and distribute family planning IEC materials; (b) produce health IEC materials for MOHSA; (c) pretest, test and evaluate health IEC materials in collaboration with MOHSA; and (d) in collaboration with KIFP, train health personnel in the use of IEC equipment and materials and in basic program techniques, as well as equipment maintenance.

#### Training

4.16 KIFP will be responsible for the family planning training component of the project, and will prepare detailed training plans giving priority to the conversion of community health workers into multipurpose workers. In collaboration with the Provincial Governments, and in coordination with MOHSA, KIFP will prepare and carry out the training programs. KIFP, in collaboration with PPFK, will provide IEC training for about 400 persons from the various health facilities. KIFP will also report to MOHSA on the progress of the project training activities.

4.17 MOHSA will be responsible for the midwifery training of multi-purpose workers and, in conjunction with universities and hospitals, will prepare detailed programs for this training. It will enter into contracts with universities and other institutions to carry out the theoretical and practical portions of the program and supervise the training.

#### Research and Evaluation

4.18 As specified earlier (para. 3.18), MOHSA will invite proposals from public and private research groups to carry out the research included in the project, award contracts and monitor their execution.

#### Operation of Health and Family Planning Facilities

4.19 Each MCH/FP center will operate under the direction of the Director of the health center to which it is attached, and it will be administered by the Provincial Government and receive technical supervision from the Bureau of MCH at MOHSA. Within the MCH/FP center itself, the senior midwife will be in charge.

4.20 In order to ensure some community participation in the operation of MCH/FP centers, GROK is proposing to set up for each center a Joint Operational Committee (JOC) consisting of the Director of the Health Center, the senior midwife, a local physician, the leader of the Saemaul Movement in the community and a representative of the community. This may contribute to

a fuller utilization of the centers. During negotiations, the GROK gave assurances that guidelines and procedures for the establishment and functioning of these JOCs will be prepared by June 30, 1981.

4.21 Hitherto, the supervision of the health centers by the provincial Bureau of Health and Social Affairs and that of the community health workers (subcenter) by the health centers has been inadequate because of a shortage of supervisory staff. The GROK is planning to appoint a supervisor in the Bureau of Health and Social Affairs of each province and one extra supervisor in each health center (para. 3.04). The latter will provide services in the MCH/FP center when necessary.

4.22 The family planning clinics and mobile units to be donated by GROK to PPFK will be operated by the provincial branches of PPFK in collaboration with the Bureau of Health and Social Affairs as in the past. Issuance by the GROK of an Executive Order to PPFK on terms and conditions satisfactory to the Bank, relating to PPFK's functions and obligations under the project, is a condition of effectiveness.

4.23 The project will provide space for day care centers in 68 of the MCH/FP centers, to be operated by the Saemaul women's clubs under the direction of the provincial Bureaus of Health and Social Affairs. If these day care centers are to be effective, they should use the integrated day care approach, including feeding and nutrition and family planning education programs, now being followed in the existing day care centers. Assurances to this effect were given during negotiations.

#### E. Accounting

4.24 The project provides for the appointment of an accountant who will be attached to the accounting unit of the Bureau of MCH at MOHSA. This accountant will set up an accounting system, maintain the accounts, prepare disbursement requests to the Bank, and have them approved by the authorized officials in MOHSA and sent to the Ministry of Finance for approval and transmittal to the Bank. The accounts will be subject to regular Government auditing procedures and be open for inspection by the Bank as well as summarized in the quarterly report to be submitted to the Bank by the Project Director.

#### F. Procurement

4.25 The project unit in MOHSA will work closely with the Office of Supply, Republic of Korea (OSROK) for the procurement of civil works, furniture, equipment, special equipment and vehicles. Contracts for civil works would be awarded on the basis of competitive bidding following domestic advertising and local procedures satisfactory to the Bank. Foreign contractors

would be allowed to participate (prequalification of contractors would be required). However, as Korea's construction industry is large and efficient, and the civil works under the project would cover a large number of small buildings widely scattered around the country, it is unlikely that they would be of interest to foreign contractors. Prior Bank approval would be required for all civil works contracts exceeding US\$750,000 equivalent. Furniture, equipment and vehicle contracts of US\$100,000 equivalent and over, except those for certain special equipment, would be awarded on the basis of international competitive bidding in accordance with the Bank's guidelines; domestic manufacturers would be allowed a preferential margin of 15% or the existing customs duty, whichever is the lower, over the c.i.f. price of competing imports. Special video-tape equipment, costing not more than US\$500,000 equivalent, will be obtained directly from the producers of the equipment already in use in order not to lose the advantages of standardization. Equipment and vehicle purchases that cannot reasonably be grouped to form contracts for at least US\$100,000 equivalent would be awarded without prior Bank approval on the basis of competitive bidding advertised locally following Government procedures that are satisfactory to the Bank, provided that the aggregate of all such contracts shall not exceed US\$1,000,000 equivalent. In addition, off-the-shelf items, not exceeding US\$10,000 equivalent in each contract and aggregating not more than US\$500,000 equivalent will be purchased on the basis of a minimum of three quotations.

#### G. Project Evaluation

4.26 The physical progress of the project will be measured against an implementation schedule (Annex 13). Progress in achieving targets will be measured against quantitative indicators of services provided. These indicators will be devised by MOHSA and approved by the Bank. During negotiations, the GROK gave assurances that a list of such indicators will be prepared by MOHSA by June 1, 1980. To facilitate Bank monitoring of project implementation, the provincial governments as well as KIFP and PPFK will submit to the Project Director quarterly reports giving, for each component, the physical status, expenditure and performance. The Project Director will prepare its own report in regards to project activities to be implemented by MOHSA. On the basis of these Reports, the Project Director will prepare a summary report to be sent to the Bank. This summary report should include sketches of the "standard" civil works designs; copies of evaluation of bids and recommendations of award of contracts; and copies of research proposals received by MOHSA for the three evaluation studies to be financed under the project. The detail reports from executing agencies would be available in Korea for review by supervision missions.

#### H. Project Risk

4.27 Up to the present the Bureau of MCH at MOHSA has wanted to make birth delivery at health facilities its principal goal and therefore wishes

to have 100% of those deliveries take place in institutions rather than at home. Because of the impossibility of achieving this goal in the short to medium term, given the lack of facilities and the traditions of the Korean population, this project emphasizes delivery of normal cases at home attended by trained multipurpose workers and referral of "at risk" cases to MCH/FP centers. Failure to emphasize this approach constitutes the principal risk for the project. Lack of emphasis on this approach would imply that the advantages of integrating family planning with health at the field level and the possibility of using the postpartum family planning approach at home would be reduced. The final effects of the project would then be significantly diminished. Understanding on the part of the management of MOHSA, that attendance by health personnel in home deliveries is the most that can be done at present, will certainly reduce the risk.

4.28 Another risk apparent in the project is the fact that provincial health services are under the administrative jurisdiction of the Ministry of Home Affairs (MOHA) and under technical supervision of MOHSA. There is therefore the risk that the priorities of the Provincial Governments will direct the resources provided in the project toward other health needs, thereby reducing the importance of family planning work in benefit of other health work. The supervision of MOHSA, the importance that the Central Government has given to the population problem and the effects of the reinforced IEC campaign in increasing demand for family planning and MCH services, make this risk rather remote.

4.29 A third risk is that the facilities to be provided under the project will not be fully utilized. In the short run this is a real possibility because Korean women, especially in rural areas where the project is concentrating its efforts, are not accustomed to delivering their children in health facilities. This risk is diminished because of the concentration of those facilities in "at risk" cases, because of the IEC campaign emphasizing the availability of the facilities, and because of the work of the fieldworkers in referring "at risk" cases to those facilities. It is not expected, however, that full utilization will be achieved immediately. Realistically it will be some time before those facilities will operate at full capacity.

## V. PROJECT BENEFITS AND JUSTIFICATION

### Project Benefits

5.01 It is impossible to calculate precisely the direct contribution the project is likely to make to the reduction in fertility or to the reduction of maternal mortality, and infant and child mortality and morbidity. The project will, however, help the Government to make family planning services more accessible through the creation of new MCH/FP centers and family planning clinics; to increase their effectiveness through the conversion of TB, MCH and FP workers into multipurpose workers each covering a smaller area than at present; and to increase the demand by increasing the scale and quality of

IEC activities. By providing population and health education for mothers in day care centers, it will be easier to influence rural women to adopt new attitudes towards family health. The project will also help to increase the proportion of deliveries attended by qualified personnel either at home or in MCH/FP centers. The conversion of community health workers into multipurpose workers will make possible better pre- and postnatal care and better care for infants and children. By the end of the project period, the MCH centers should be able to handle about 150,000 births a year or about 30% of the number of births in rural areas. In addition, the multipurpose workers would have the capacity to help in about 200,000 deliveries at home. This compares with direct attendance for only about 27,000 births at present. The services provided by these workers include delivery, pre- and postnatal services, screening of at-risk mothers for reference to MCH facilities, infant care, family planning services and TB control, and will reach at least 50% of the rural population. It is estimated that about ten million people would be provided primary health care services under the project. By helping the Government achieve its objectives of reducing the rate of growth of population, the project will also help slow down the pressures on land resources, reduce the possibilities of high unemployment and increase per capita income at a higher rate. It may also facilitate the improvement in income distribution.

#### Project Justification

5.02 This project is justified on four basic reasons: the high density of the country; the difficulties in reducing fertility further; the trends toward higher birth rates in the near future; and the consequences of additional growth in population for the economy.

5.03 The Republic of Korea is, after Bangladesh and a few city-states, the most densely populated country in the world. Even though it has been able to reduce its rate of growth of population significantly, any new additions will worsen the already overcrowded environment which, besides putting heavy demands on the scarce natural resources of the country, tends to worsen the problems of pollution and damage to the environment. While other countries with a much higher rate of growth can afford more people, at least in the short run, because of the relative abundance of land, Korea cannot afford this and has consequently pursued a strong population program that encourages even permanent emigration of its citizens.

5.04 Fertility in Korea has reached a level where any new reductions require significant costs. During the 1960s fertility was so high that reductions could be obtained with moderate program effort and socioeconomic development. The present situation is showing a plateau in the acceptance of effective methods of contraception, the drop-out rates among users of pills and IUD's are relatively high compared with those in other countries, and abortion is on the increase. These barriers may in part be due to the still strong son preference which makes women desire at least one son and perhaps more. Efforts to make families desire two or three sons instead of four have to be strong. Efforts to make families go from desiring two sons to stop at two children regardless of the sex of the children have to be stron-

ger still. The latter is required in Korea at present. The job is more difficult among the rural population of low socioeconomic status and that is the population to which this project is directed not only with services but also with a strong IEC campaign.

5.05 If fertility is not reduced, the birth rate will increase again in the near future and thus bring about an increase in the rate of growth of population. These circumstances would occur because of the increase in the proportion of women of reproductive age among the population (a consequence of the baby boom after the Korean War) and because of a likely reduction in the mean age at first marriage. To reduce the birth rate or even to maintain it at present levels, it is necessary to reduce fertility to counteract the effect of the trends observed in age distribution and age of marriage.

5.06 Reducing fertility and the rate of growth of population is needed to moderate economic problems. Even if the Government's objectives in population can be achieved, by the mid-eighties between 5-7.5% of GNP will be required just to give the added population present standards of living. Employment in rural areas has been declining and this will force future population increases to be concentrated in the cities, increasing congestion, pollution and the demand for public services. The additional population will require the standard of living of the cities, not that of the rural areas. Moreover, employment creation is not likely to occur as fast as the increase in the labor force, bringing about a higher rate of unemployment. Agricultural production has increased at a commendable pace in the last fifteen years and made the country almost self-sufficient in rice, but limitations of arable land and the cost of energy may place this self-sufficiency in jeopardy with more growth in population. Although the project will not eliminate the problem of population growth and its effects on the environment and on the economy, it will certainly help the Government come closer to the solution of this important problem in the country.

5.07 The project is also justified on health grounds: the poorer population in rural areas do not have access to reliable health services, most deliveries take place at home without the assistance of medically trained personnel and immunization is still short of needs. The reductions in mortality and morbidity that this project can help to bring about, especially among women and children, are likely to be sufficient to justify the Government's investment in health services through the present project.

## VI. AGREEMENTS

6.01 During negotiations, assurances were obtained to the effect that the GROK shall:

- (a) ensure that all community health workers engaged at health facilities under the project will be offered terms of remuneration and conditions of service mutually satisfactory

to the GROK and the Bank. The terms were further defined in a supplemental letter to the Loan Agreement (paras. 3.04 and 3.10);

- (b) provide all such funds, as and when required and under terms and conditions satisfactory to the Bank, for operating costs of the project (paras. 3.05, 3.08 and 4.05);
- (c) take all such action as shall be necessary for it or PPFK to acquire, not later than July 31, 1980 adequate sites (at least 1,000 m<sup>2</sup> and suitably located) for the construction of MCH/FP centers and PPFK family planning clinics (paras. 3.06 and 3.07);
- (d) ensure that vehicles acquired under the project shall be properly maintained, used exclusively for the project and that a system for monitoring the maintenance and use of the vehicles shall be established (para. 3.08);
- (e) cause MOHSA to solicit proposals from at least three research institutions for each of the following items: establishment of a reporting system, evaluation of the midwifery training and evaluation of the results of the project; and that such proposals shall be evaluated by the Project Advisory Committee, whose choices shall be satisfactory to the Bank (para. 3.18);
- (f) establish, not later than March 1, 1980, a Project Advisory Committee with representatives of MOHSA, KIFP, the Korean Health Development Institute, the Korean Development Institute, PPFK and universities having health care expertise to advise the Project Director on matters of policy, program development and research (para. 3.19);
- (g) ensure that establishment at each MCH/FP center of a Joint Operational Committee (JOC), consisting of the Director of the health center, the senior midwife of the MCH/FP center a local physician, the leader of the local Saemaul Movement and one or more community representatives; and submit to the Bank for comments, not later than June 30, 1981, guidelines for the establishment and functioning of such Joint Operational Committees (para. 4.20);
- (h) ensure that the financing and operation of the day care centers to be established within the MCH/FP centers to be built under the project, will follow the same pattern as that of the day care centers now following the integrated day care approach (para. 4.23); and



- (i) devise, not later than June 1, 1980, detailed quantitative indicators satisfactory to the Bank, to measure program progress (para. 4.26).

6.02 As condition of loan effectiveness, the GROK shall issue an Executive Order to PPFK, the contents of which shall be satisfactory to the Bank, relating to PPFK's obligations and functions under the project.

6.03 With the above assurances, the project is suitable for a Bank loan of US\$30 million equivalent on standard terms to the Government of the Republic of Korea.

## KOREA

FAMILY PLANNING BUDGET BY SOURCE OF FUNDS  
(₩ millions)

Year	Total	National Government	Local Government	Foreign Assistance	Other
1961	.4	-	-	.4	.1
1962	73.0	42.7	27.6	1.9	.8
1963	122.3	77.0	42.8	2.4	.1
1964	310.6	158.2	121.9	29.8	.7
1965	375.4	194.4	143.0	35.3	2.7
1966	707.2	423.1	223.3	55.7	5.1
1967	769.6	423.9	252.9	88.1	4.8
1968	1,292.5	430.2	260.5	594.7	7.1
1969	1,561.8	615.9	326.8	608.5	10.5
1970	1,571.5	716.1	347.7	500.1	7.5
1971	1,816.8	674.5	355.8	735.0	51.5
1972	2,116.1	657.4	361.5	550.5	546.8
1973	2,270.8	765.7	373.0	542.9	589.1
1974	2,755.1	806.3	432.1	1,072.4	444.3
1975	3,095.4	1,176.9	671.7	782.1	464.7
1976	4,520.5	1,858.8	1,048.3	1,119.3	494.0
1977	8,512.4	5,400.8	1,338.3	1,059.2	714.2
1978	9,461.7	6,299.8	1,551.5	976.2	634.3

Source: Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea,  
Vol. I, December 1978.

## KOREA

NATIONAL BUDGET ALLOCATIONS TO MOHSA (HEALTH AND FAMILY PLANNING)  
(₩ millions)

Year	Total Gov't Budget (A)	MOHSA (B)	(B/A) (%)	Health (C)	(C/A) (%)	Family Planning (D)	(D/A) (%)	(D/B) (%)	(D/C) (%)
1962	88,393	2,021	2.29	785	0.89	43	0.048	2.11	5.44
1963	72,839	2,904	3.99	787	1.08	77	0.106	2.65	9.78
1964	75,180	2,722	3.62	962	1.28	158	0.210	5.81	16.44
1965	94,692	3,168	3.35	886	0.94	194	0.205	6.14	21.94
1966	141,629	4,342	3.07	1,432	1.01	423	0.299	9.74	29.55
1967	182,076	5,394	2.96	1,763	0.97	424	0.233	7.86	24.04
1968	265,719	8,918	3.36	2,387	0.90	430	0.233	4.82	18.03
1969	370,882	10,536	2.84	3,152	0.85	616	0.166	5.85	19.54
1970	446,273	8,590	1.92	4,322	0.97	716	0.160	8.34	16.57
1971	659,344	11,648	1.77	6,192	0.94	674	0.102	5.79	10.89
1972	709,336	11,003	1.55	5,759	0.81	657	0.093	5.97	11.41
1973	659,375	10,341	1.57	6,774	1.03	766	0.116	7.41	11.30
1974	847,733	11,859	1.40	6,303	0.74	806	0.095	6.80	12.79
1975	1,291,957	36,103	2.79	9,242	0.71	1,177	0.082	2.93	11.43
1976	2,253,512	41,346	1.83	19,321	0.86	1,859	0.082	4.50	9.62
1977	2,869,856	55,674	1.94	31,422	1.09	5,401	0.188	9.70	17.19
1978	3,517,037	66,451	1.89	39,207	1.11	6,300	0.179	9.48	16.07

Source: Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol I,  
December 1978.

KOREA

STAFFING PATTERN OF HEALTH CENTERS

Location Served	Location Served		
	Distr./City >200,000 pop	Distr./City <200,000 pop	Gun (County)
Number of Facilities / <sup>1</sup>	24	36	138
Staff per Facility			
Physician	5	3	2
Dentist	1	1	1
Pharmacist	1	1	1
Health Nurse	3	2	1
Midwife	2	1	1
Nurse	27	14	4
X-Ray Technician	2	1	1
Laboratory Technician	2	2	1
Dental Technician	2	2	1
Dental Hygienist	1	1	1
Public Health Technician	12	8	6
Administrator	6	3	3
Nurse Aide	10	10	3
Other	7	3	2
Total per Facility	81	52	28

<sup>1</sup> The distribution by District/City/Gun of 4 out of the total 202 facilities is unknown.

Source: GROK Proposal for Population Project.

KOREA

RISK APPROACH FOR MATERNAL AND CHILD HEALTH CARE <sup>1/</sup>

1. The "risk" approach is a managerial strategy for health services, in particular for serving mothers and children. Individuals and groups with an increased expectation of complications or disease are defined as being "at risk"; they are identified as early as possible and interventions made to reduce the risk. This strategy allows special attention to those in need within a framework of improved health care for all.

2. Risk factors may be defined as the characteristics or circumstances of a person or group that are associated with an increased risk of having, developing, or being especially adversely affected by a morbid process. First pregnancy, high parity, too frequent pregnancies, pregnancy at the extremes of reproductive age, previous child loss, and malnutrition are examples of universal risk factors, which increase the chances of a poor outcome of pregnancy. For the infant, large families, crowding, illiteracy, and poor sanitation are well known examples of risk factors, e.g. for gastroenteritis as for a number of other diseases. Certain risk factors are specific for particular outcomes, but more often one risk factor - grand multiparity, for example - increases the frequency of various undesirable outcomes.

In some situations, culture and customs may act as risk factors by limiting the education or status of women, by prescribing or withholding certain foods during pregnancy, or by perpetuating unhygienic practices. In others, the climate, the nonavailability of certain foods, or poor environmental sanitation increase the risks for both mothers and children.

3. Detection of risk factors requires a knowledge of the characteristics associated with poor outcomes, the ability to recognize and measure them, and contact with every woman and child in the community. Some factors are easily detected even by the minimally trained health worker, e.g., age, parity, maternal height, and previous fetal or child loss. With increased training, the proportion of detectable factors increases, leading to improved precision in predicting outcomes. Measurement of blood pressure, detection of twin pregnancy, and estimation of haemoglobin level are examples of methods of detecting further risk factors during pregnancy that require additional resources. For the infant, the measurement of birth-weight, monitoring of growth, and knowledge of feeding practices all give desirable bits of information that permit the detection of risk factors and facilitate early intervention.

4. Intervention strategies need to be developed in response to the health problems of women and children in each locality, taking into consideration individual characteristics as well as the effects of the physiochemical, biological, and social environments. The needed intervention may well involve not only treatment of the individual to reduce risk but also community advice on family spacing, health education to change feeding patterns, and development programs to improve food production and environmental sanitation.

<sup>1/</sup> Adapted from World Health Organization "Risk Approach for Maternal and Child Health Care", Offset Publication No. 39, 1978.

Decisions must be taken, based on local patterns of epidemiology and availability of resources, as to the action to be taken at each level and the tasks of each member of the health team, including policies for referral. These, in turn, have clear implications for training and supervision and for the organization of the health services generally.

5. A health information system is an essential part of the strategy, providing, at levels consistent with local resources, information on the population at risk, the services provided and their utilization and the results achieved. This knowledge can then be used to extend coverage, to change practices, to reallocate resources, and to monitor the consequences of such improvements.

6. Information needed for decisions on strategy includes both community factors based on population data (or best estimates) and individual factors for the pregnant women and children. Community factors include:

- Marriage and family formation patterns
- Cultural patterns, special taboos, and religious practices
- Education of women, their status and employment outside the home
- Economic patterns - socioeconomic indices (i) generally, and (ii) of defined sub-groups
- Nutrition, dietary habits, and availability of foods
- Age-distribution of pregnant women
- Parity distribution - spacing, birth order
- Fetal and child loss
- Environmental sanitation
- Prevalent infections and other endemic diseases
- Acceptability and utilization of available MCH/FP services

7. Examples of characteristics that define individuals at higher risk, and possible interventions follow.

(a) Mothers

<u>Associated causes</u>	<u>Precursors and risk factors</u>	<u>Possible interventions</u>
Low birth weight	Mother aged under 17, 35 or more Low prepregnancy weight Poor maternal weight gain Grand multiparity Short interpregnancy interval Previous pregnancy loss Multiple pregnancy Vaginal bleeding Pre-eclampsia Previous induced abortion Chronic infection Smoking	Improved health education before pregnancy Contraceptive advice Improved nutrition Early and regular antenatal care Referral for bleeding multiple pregnancy cervical incompetence pre-eclampsia, etc. Rest during pregnancy Cessation of smoking Intensive care during labour Resuscitation of newborn

Birth trauma	Cephalopelvic disproportion Previous babies over 4 kg Previous operative deliveries Breech delivery High forceps Unattended labor	Careful obstetrical history Early and regular antenatal care Early referral Delivery by qualified attendant
Fetal hypoxia	Mother over 35 Maternal malnutrition Grand multiparity Maternal obesity Previous perinatal death Anaemia Endemic diseases, e.g. malaria Poor weight gain Prolonged pregnancy Vaginal bleeding Pre-eclampsia Chronic diseases, e.g. cardiorenal Transverse lie Breech delivery Prolonged labor Prolapsed cord Placenta previa Second twin	Improved health education before pregnancy Contraceptive advice Improved nutrition Control of malaria Early and regular antenatal care Referral for treatment of specific complications and diseases Delivery by qualified attendant Possible induction of labor or caesarian section Intensive care during delivery Resuscitation of newborn
Antepartum haemorrhage	Trauma Pre-eclampsia Hypertension Premature labor Twin delivery Version Breech delivery	Antenatal care with early detection Referral for specific treatment and delivery under qualified supervision Possible caesarian section Resuscitation of newborn
Congenital malformations	Mother aged over 35 Consanguinity Rubella during pregnancy Teratogenic drugs etc.	Improved health education Premarital and family counselling Contraceptive advice Immunization against rubella

(b) Infants and Toddlers

Protein-calorie deficiency	Illiteracy Mother working away from home Lack of breast feeding Poor feeding patterns
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	Failure to thrive	Community action to
	Short interpregnancy interval	improve food supply, education of girls, facilities for the care of babies of working mothers, health education for personal hygiene
	Diarrhoea	Contraceptive advice, well-baby care including feeding advice and immunization
	Measles	Early detection and care of sick infants, provision of safe drinking water
	Pertussis	hygienic disposal of excreta, garbage, and waste water
Pneumonia	Upper respiratory infection	
	Diarrhoea	
Diarrhoea	Artificial feeding	
	Malnutrition	
	Polluted drinking water	
	Flies	
	Inadequate disposal of faeces	
	Poor personal hygiene	
	Dehydration	
	Measles	
Measles	Source of infection in community	
Pertussis	Malnutrition	
	Overcrowding	

(c) Example of a simple scoring scheme for pregnancy risks

	<u>Characteristics</u>	<u>Points</u>
Age	Under 19, over 40	4
	Between 30 and 39	2
	Between 20 and 29	0
Number of children	10 or more	4
	0 to 1	2
	2 to 9	0
Interval between deliveries	Less than 24 months since last delivery	1
	24 months or more since last delivery	0
Medical history	Previous obstetrical complications, perinatal deaths, etc.	3
	Diabetes, heart disease, renal disease, psychoses, etc.	5
Maternal education	Illiterate	1
	Can read and write	0



The points are added up to give a total score and decisions taken as follows:

- |                                      |                  |
|--------------------------------------|------------------|
| 1. Highest risk, referral obligatory | 5 points or more |
| 2. High risk, referral recommended   | 3 to 4 points    |
| 3. Usual risk, usual local care      | 0 to 2 points    |

KOREA

SCHEDULE OF ACCOMMODATIONS FOR MCH/FP CENTERS, TYPES A AND B

Function	Approx. Net Area (m <sup>2</sup> )	
	Type A	Type B
Medical Services		
Entrance, waiting, space for IEC activities	30	20
Registration, counselling, pharmacy	18	18
Examination, with lab. bench	15	15
Doctor's office	12	-
Waiting, children	9	9
Examination, children	12	12
Labor and delivery room (4, resp. 2 beds)	60	30
Scrub-up, store	20	15
Operating room	20	-
Recovery room (6+2=8, resp. 2 beds)	35	12
Nurse's station, sterilization, supply	15	12
Toilets, store, cleaner	20	15
Bed Ward		
Ward rooms (4x4, resp. 2x3 beds)	120	45
Nursery	15	12
Nurse's station, sick babies, supply	15	12
Day room	18	15
Toilets, store	20	15
Night duty room	15	15
Other Facilities		
Day care unit, incl. office and toilets	50	50
Administrative office	12	12
Accommodation for midwife (2)	70	70
Kitchen, dining	35	25
Laundry, sterilization of linen	25	20
Store	35	25
Boiler	35	35
Garage (separate)	21	21
Sub-total (net area)	717	530
Circulation, walls, PDR, 50%	359	265
Total (gross area)	1076	795

## KOREA

## LOCATIONS OF MCH/FP CENTERS, DAY CARE CENTERS AND FAMILY PLANNING CLINICS

Province, Number, Type	County or City	Province, Number, Type	County or City
<b>Gyeong-gi</b>		<b>Jeonra Nam</b>	
101 A *	Bucheon City	601 A	Hwasun
102 B	Gimpo	602 A *	Muan
103 B	Yangpyeong	603 A	Yeocheon (Gwangyang)
104 B	Gapyeong	604 A *	Seungju
105 A *	Goyang	605 A	Gurye (Gogseong)
106 B *	Yeoncheon	606 A *	Boseong
107 A	Hwaseong	607 A	Naju
108 A *	Yeoju	608 A *	Yeong-gwang
109 A *	Yong-in	609 A	Jangseong
110 B	Ganghwa	610 A	Wando
Clinic	City of Seoul	611 A	Jangheung
Clinic	Suwon City	612 A *	Gwangsan
		613 A *	Hampyeong
		614 B	Jindo
		Clinic	Gwangju City
<b>Gang-weon</b>		<b>Gyeongsang Bug</b>	
201 A	Hongcheon	701 A	Dalseong
202 A *	Meongju	702 A	Yeong-il
203 A	Hoengseong	703 A	Weolseong
204 B *	Pyeongchang	704 A	Geumneung
205 A	Jeongseon	705 A	Andong
206 A	Yangyang	706 A	Seonsan
207 B *	Goseong	707 A	Cheongsong (Yeongdeog)
208 B *	Cheolweon	708 B	Yeongyang
209 B *	Hwacheon	709 A	Yeongcheon
210 B *	Yang-gu	710 A	Seongju (Goryeong)
Clinic	Chuncheon City	711 A	Sangju
		712 A	Yecheon
		713 A	Yeongju
		714 B	Chilgog
		715 B	Bonghwa
		716 A	Cheongdo
		717 A	Eulseong (Guneiu)
		Clinic	Dae-gu City
<b>Chungcheong Bug</b>		<b>Gyeongsang Nam</b>	
301 B	Bo-eun	801 A	Chang-weon
302 A	Ogcheon (Yeongdong)	802 A	Ulju
303 A	Jincheon (Cheongweon)	803 A	Gimhae
304 A	Eumseong (Jungweon)	804 A	Tong-yeong (Goseong)
305 A	Jecheon	805 A *	Sacheon
306 B *	Danyang	806 B *	Hadong
Clinic	Cheongju City	807 A	Haman (Euiryeong)
		808 A	Yangsang
		809 A	Sancheong (Hamyang)
		810 A	Habcheon
		811 B	Geoje
		812 A	Namhae
		813 A	Geochang
		Clinic	Busan City
		Clinic	Chungmu
<b>Chungcheong Nam</b>		<b>Jeju</b>	
401 A	Seocheon	901 A	Bugjeju
402 A	Boryeong	Clinic	Jeju City
403 A	Buyeo		
404 B	Yeon-gi		
405 A	Yesan		
406 B *	Cheong-yang		
407 A	Dangjin		
408 A	Asan		
409 A	Geumsan		
Clinic	Cheonan City		
<b>Jeonra Bug</b>			
501 B *	Oggu		
502 A	Igsan		
503 A	Wanju		
504 A	Jinan (Jangsu)		
505 B	Muju		
506 A	Jeong-eub		
507 A	Gimje		
508 A	Gochang		
509 A	Buan		
510 B *	Imsil		
511 A	Sunchang (Namweon)		
Clinic	Jeonju City		

Key: \* Day Care Center already exists.

( ) Facility located near border of this province, serving it as well.

KOREA

DAY CARE CENTERS

1. Day care centers in Korea provide care to the children of working parents. They are administered by the Saemaul Womens' Clubs, with support from the Bureau of Social Affairs of MOHSA. As of December 1975, there were 574 licensed day care centers, 505 of them providing the integrated approach.

2. A typical day care center employs a director and, depending on the size of the center, between 3 and 9 attendants and aides. The directors, most of whom are professional administrators, educators and welfare workers, administer the centers. Attendants feed, teach and supervise the children, and counsel the mothers regarding child development, supervision and child care; over 90% of the senior attendants and about 55% of the junior attendants have received professional training. About 75% of the centers care for 70-90 or more children. On average, there is about one staff per 15-18 children.

3. The clients of day care centers are primarily low-income families with working mothers and small children. About 88% of the mothers are aged 26-40 years. About 35% of the mothers in the urban areas attended high school, while only about 19% of those in the rural areas did. All the children are of preschool age; about 92% are between 4 and 6 years old.

4. The integrated day care center approach was begun in the early 1970s with support from CARE, the World Food Program and MOHSA. It provides food for pre-school children and instruction for their mothers in nutrition education and family planning. The objective is to promote an integrated system for the delivery of these services.

A. Feeding Program

5. The objectives of the feeding program are:

- (a) To provide an acceptable feeding service for pre-school children.
- (b) To improve the child's physical condition--measured by morbidity and anthropometric indicators.
- (c) To promote the participation of children in the program.

6. The feeding service provides nutrition supplements--lunch and two snacks--to children everyday except Sunday. The daily ration of 150 grams of flour, 70 grams of corn-soy blend, and 25 grams of vegetable oil, is supplied to 35,000 children, 300 days a year,<sup>1/</sup> through the auspices of the World Food Program. Compared with children in day care centers without the integrated approach, the children participating in the feeding program experienced fewer colds, stomach problems and serious illness, and were taller and weighed more (controlling for age, sex and rural/urban variables).

B. Nutrition education

7. The objectives of the nutrition education program are:

- (a) To increase the mother's knowledge of the nutrients essential

in maintaining good health for her children and other members of her family.

- (b) To help the mothers to apply their knowledge, acquired in the nutrition class, in day-to-day living.
- (c) To promote the participation of mothers in the nutrition education class.

8. Ten nutrition education classes are conducted by CARE nutritionists at each center each year. About 40 mothers attend the class at any one time. Mothers learn such things about nutrients and food habits in relation to the health of children as milk-feeding, weaning, the proper food for patients, pregnant women and balanced diets. Mothers are also encouraged to put what they learn into practice, although some cannot afford to do so. Mothers who participate in the integrated program show a far better knowledge and practice of nutrition principles than mothers who do not.

C. Family Planning education program

9. The objectives of the family planning education program are:
- (a) To increase mothers' knowledge of family planning and to promote a favorable attitude toward family planning.
  - (b) To help mothers to practice family planning.
  - (c) To induce mothers to participate in the family planning education class.

10. Ten family planning education classes are also conducted by CARE nutritionists at each center each year. Family planning and maternal and child health are discussed. Mothers who have participated in the program have been found better informed as to the purposes of family planning, more supportive of the program, understand better why they support the program, and prefer male children to a lesser extent. About 80% of the mothers participating in the program use a method of contraception whereas only 59% of those not participating do so. In the rural areas, this difference is even more marked: 87% and 55%, respectively. These mothers also evidenced greater satisfaction with the method they were using (65% and 40%, respectively). Nearly two-thirds of the mothers participating in the program reported that they started to practice family planning after they had attended the education class, while only 7% of mothers not participating did so.

11. There is a high degree of participation in and support for these programs. They serve not only those participating directly, but to friends and relatives of participants. The number of fathers participating in the family planning class has also been increasing. The integrated day care center approach provides an excellent opportunity for expanding the integrated service delivery network.

KOREA

SCHEDULE OF ACCOMMODATIONS FOR PPFK FAMILY PLANNING CLINICS

<u>Function</u>	<u>Approx. Net Area (m<sup>2</sup>)</u>
FP, MCH	
Entrance, waiting, space for IEC activities	30
Registration, counselling, pharmacy	18
Examination, FP	15
Laboratory	12
Doctor's office	12
Waiting, children	9
Examination, children	12
Tubectomy, vasectomy patients anteroom	12
Tubectomy room	20
Scrub-up, sterilization, store	15
Vasectomy room	20
Recovery (6+2=8 beds)	30
Nurse's station	12
Toilets, store, cleaner	20
Delivery, ward	
Labor room (4 beds)	18
Delivery room	18
Scrub-up, sterilization, store	15
Midwives	15
Ward rooms (2x6 beds)	90
Nursery, store	12
Nurse's station, sick babies, supply	15
Day room	15
Toilets, store	15
Night duty room	15
Branch Office	
Secretary	15
Administrative office (3 pers.)	18
IEC officer and store	12
Conference (40 pers.)	60
Auxiliary facilities	
Kitchen, dining areas	45
Laundry	35
Store	35
Boiler	35
Garage (separate)	21
Sub-total (net area)	741
Circulation, walls, PDR 45%	333
Total (gross area)	1,074

KOREA

SCHEDULES OF ACCOMMODATIONS FOR EXPANSION OF KIFP TRAINING AND  
PPFK PRODUCTION FACILITIES

(A) KIFP Training Facilities

<u>Function</u>	<u>Remarks</u>	<u>Approx. Net Area (m<sup>2</sup>)</u>
Offices Training Division	Now on 2nd floor	180
Registration and Students' Affairs		35
Group Discussion Rooms	2 (new)	70
Audiovisual Studio	(new)	70
Lecture Rooms with Projection Room	Increases total capacity from 50 to 150 seats	145
Demonstration Rooms	(new) MCH, FP, TB	145
Toilets		35
Dormitory	32 rooms, increases total net capacity from 50 to 100 students	600
Toilets, laundry, store		70
Subtotal (additional net area) approx.		<u>1,350</u>
Circulation, walls, approx. 35%		<u>485</u>
Total gross additional area		<u><u>1,835</u></u>

(B) PPFK IEC Production Facilities

<u>Function</u>	<u>Approx. Net Area (m<sup>2</sup>)</u>
Audiovisual Studio	100
Work Room	45
Audiovisual Room	45
IEC Offices (5 persons)	45
Toilets, Stove	20
Subtotal (net area)	<u>225</u>
Circulation, walls, approx. 35%	<u>90</u>
Total (gross area)	<u><u>345</u></u>

KOREA

DETAILED COST ESTIMATE

(In thousands of US Dollars)

	1980	1981	1982	1983	Local	Foreign	Total
<b>A. MOHSA</b>							
1. <u>Services</u>							
Construction	-	38,971	4,330	-	25,981	17,320	43,301
Furniture, equipment	2,096	6,193	-	-	1,745	6,544	8,289
Professional fees	520	1,041	781	-	2,342	-	2,342
Vehicles	159	317	-	-	238	238	476
Total Base Cost	2,775	46,522	5,111	-	30,306	24,102	54,408
Physical contingencies	278	4,652	516	-	3,030	2,416	5,446
Price contingencies	300	10,347	1,730	-	8,115	4,262	12,377
Total Contingencies	578	14,999	2,246	-	11,145	6,678	17,823
Total Services	3,353	61,521	7,357	-	41,451	30,781	72,232
2. <u>Training</u>							
Special equipment	121	-	-	-	-	121	121
Vehicles	10	-	-	-	5	5	10
Incremental operating cost	462	750	750	654	2,616	-	2,616
Total Base Cost	593	750	750	654	2,621	126	2,747
Physical contingencies	14	-	-	-	1	13	14
Price contingencies	75	177	251	289	780	12	792
Total Contingencies	89	177	251	289	781	25	806
Total Training	682	927	1,001	943	3,402	151	3,553
3. <u>IEC</u>							
Special equipment	-	718	-	-	-	718	718
Incremental operating cost	215	214	214	194	837	-	837
Total Base Cost	215	932	214	194	837	718	1,555
Physical contingencies	-	72	-	-	-	72	72
Price contingencies	29	161	72	86	237	111	348
Total Contingencies	29	233	72	86	237	183	420
Total IEC	244	1,165	286	280	1,074	901	1,975
4. <u>Research and Evaluation</u>							
Incremental operating costs	-	200	200	200	600	-	600
Price contingencies	-	47	67	88	202	-	202
Total Research and Evaluation	-	247	267	288	802	-	802
5. <u>Administration</u>							
Special equipment and supplies	16	-	-	-	-	16	16
Vehicles	14	-	-	-	7	7	14
Study Tour	5	-	-	-	-	5	5
Incremental operating costs	124	124	124	106	478	-	478
Total Base Cost	159	124	124	106	485	28	513
Physical contingencies	4	-	-	-	-	4	4
Price contingencies	21	29	42	47	136	3	139
Total Contingencies	25	29	42	47	136	7	143
Total Administration	184	153	166	153	621	35	656
<b>B. PPFK</b>							
1. <u>IEC</u>							
Construction	-	74	148	25	148	99	247
Furniture and equipment	-	4	11	-	5	10	15
Professional fees	3	7	5	-	15	-	15
Special equipment	61	-	-	-	-	61	61
Incremental operating costs	-	195	196	195	586	-	586
Total Base Cost	64	280	360	220	754	170	924
Physical contingencies	6	8	17	3	17	17	34
Price contingencies	6	65	119	98	255	33	288
Total Contingencies	12	73	136	101	272	50	322
Total IEC	76	353	496	321	1,026	220	1,246



KOREA  
DETAILED COST ESTIMATE  
(In thousands of US Dollars)

ANNEX 10  
Page 2

B. PPFK (cont'd.)	1980	1981	1982	1983	Local	Foreign	Total
2. <u>Services</u>							
Construction	-	1,513	3,025	504	3,025	2,017	5,042
Furniture and Equipment	-	197	592	-	197	592	789
Professional fees	67	135	101	-	303	-	303
Special equipment	-	30	-	-	-	30	30
Total Base Cost	67	1,875	3,718	504	3,525	2,639	6,164
Physical contingencies	7	188	372	50	353	264	617
Price contingencies	<u>10</u>	<u>423</u>	<u>1,193</u>	<u>221</u>	<u>1,202</u>	<u>645</u>	<u>1,847</u>
Total Contingencies	17	611	1,565	271	1,555	909	2,464
Total Services	<u>84</u>	<u>2,486</u>	<u>5,283</u>	<u>775</u>	<u>5,080</u>	<u>3,548</u>	<u>8,628</u>
3. <u>Services/IEC Vans</u>							
Vehicles	390	-	-	-	195	195	390
Special equipment	<u>298</u>	-	-	-	-	<u>298</u>	<u>298</u>
Total Base Cost	688	-	-	-	195	493	688
Physical contingencies	70	-	-	-	20	50	70
Price contingencies	<u>70</u>	-	-	-	<u>29</u>	<u>41</u>	<u>70</u>
Total Contingencies	140	-	-	-	49	91	140
Total Services/IEC Vans	<u>828</u>	-	-	-	<u>244</u>	<u>584</u>	<u>828</u>
4. <u>IEC Training</u>							
Fellowships	63	-	-	-	-	63	63
Incremental operating costs	<u>43</u>	<u>43</u>	-	-	<u>86</u>	-	<u>86</u>
Total Base Cost	106	43	-	-	86	63	149
Price contingencies	12	10	-	-	16	6	22
Total IEC Training	<u>118</u>	<u>53</u>	-	-	<u>102</u>	<u>69</u>	<u>171</u>
C. KIPP							
1. <u>Training</u>							
Construction	-	475	475	106	634	422	1,056
Furniture and equipment	-	24	73	-	29	68	97
Professional fees	12	23	18	-	53	-	53
Special equipment	-	159	-	-	-	159	159
Vehicles	24	-	-	-	12	12	24
Incremental operating costs	<u>369</u>	<u>369</u>	<u>368</u>	-	<u>1,106</u>	-	<u>1,106</u>
Total Base Cost	405	1,050	934	106	1,834	661	2,495
Physical contingencies	3	69	56	10	72	66	138
Price contingencies	<u>54</u>	<u>231</u>	<u>306</u>	<u>46</u>	<u>495</u>	<u>142</u>	<u>637</u>
Total Contingencies	57	300	362	56	567	208	775
Total Training	<u>462</u>	<u>1,350</u>	<u>1,296</u>	<u>162</u>	<u>2,401</u>	<u>869</u>	<u>3,270</u>
SUMMARY BASE COSTS							
A. MOHSA	3,742	48,528	6,399	1,154	34,849	24,974	59,823
B. PPFK	925	2,198	4,078	724	4,560	3,365	7,925
C. KIPP	<u>405</u>	<u>1,050</u>	<u>934</u>	<u>106</u>	<u>1,834</u>	<u>661</u>	<u>2,495</u>
Total Base Cost	5,072	51,776	11,411	1,984	41,243	29,000	70,243
SUMMARY CONTINGENCIES							
Physical Contingencies	382	4,989	961	63	3,493	2,902	6,395
Price Contingencies	<u>577</u>	<u>11,490</u>	<u>3,780</u>	<u>875</u>	<u>11,467</u>	<u>5,255</u>	<u>16,722</u>
Total Contingencies	959	16,479	4,741	938	14,960	8,157	23,117
TOTAL PROJECT COST	<u>6,031</u>	<u>68,255</u>	<u>16,152</u>	<u>2,922</u>	<u>56,203</u>	<u>37,157</u>	<u>93,360</u>

KOREA

ESTIMATED DISBURSEMENT SCHEDULE

(In millions of US Dollars)

Fiscal Year And Quarter	Disbursement During Quarter	Cumulative Disbursement	Percent Disbursement (cum.)
<u>FY 1981</u>			
December 31, 1980	0.3	0.3	1%
March 31, 1981	0.4	0.7	2%
June 30, 1981	1.5	2.2	7%
<u>FY 1982</u>			
September 30, 1981	1.0	3.2	11%
December 31, 1981	5.0	8.2	27%
March 31, 1982	5.2	13.4	45%
June 30, 1982	9.0	22.4	75%
<u>FY 1983</u>			
September 30, 1982	4.0	26.4	88%
December 31, 1982	1.5	27.9	93%
March 31, 1983	1.0	28.9	96%
June 30, 1983	0.6	29.5	98%
<u>FY 1984</u>			
September 30, 1983	0.3	29.8	99%
December 31, 1983	0.2	30.0	100%

KOREA

ANNEX 12

PROJECT ACTIVITY MATRIX  
(In thousands of US Dollars)

By Function Expenditure	SERVICES		TRAINING		IEC		ADMINISTRATION		RESEARCH & EVALUATION		IMPLEMENTING AGENCY
	ACTIVITY	COST	ACTIVITY	COST	ACTIVITY	COST	ACTIVITY	COST	ACTIVITY	COST	
CONSTRUCTION	MCH/FP Centers:										
	Type A	34,418									
	Type B	8,883									
	Clinics	5,042			Production	247					MOHSA, Provincial Governments PPFK
			Training Center	1,056							KIFP
EQUIPMENT	MCH/FP Centers:										
	Type A	4,888									
	Type B	1,365									
	Clinics	526			Production	6					MOHSA, OSROK PPFK, OSROK
			Training Center	54							KIFP, OSROK
FURNITURE	MCH/FP Centers:										
	Type A	1,629									
	Type B	407									
	Clinics	263			Production	9					MOHSA, Provincial Governments PPFK
			Training Center	43							KIFP, OSROK
PROFESSIONAL SERVICES	MCH/FP Centers:										
	Type A	1,874									
	Type B	468									
	Clinics	303			Production	15					MOHSA, Provincial Governments PPFK
			Training Center	53							KIFP
SPECIAL EQUIPMENT			Midwifery Training	121	MCH/FP Centers	718	Central Office	16			MOHSA, OSROK
	Mobile Clinics	149			Mobile Clinics	149					PPFK, OSROK
	Clinics	30			Production	61					
			Training Center	159							KIFP, OSROK
VEHICLES	MCH/FP Type A:	476	Midwifery Training	10			Central Office	14			MOHSA, OSROK
	Mobile Clinics	195			Mobile Clinics	195					PPFK, OSROK
			Training Center	24							KIFP, OSROK
NON-CAPITAL ITEMS			Midwifery Training	2,616	Production	837	Central Office Study Tour	478 5	Research & Evaluation	600	MOHSA MOHSA
					Production	586					PPFK
					IEC Training (in-country)	86					PPFK, KIFP
					IEC-Training (abroad)	63					PPFK
			Training Activities	697							KIFP
			Production of Training Materials	409							

Abbreviations:

- KIFP - Korean Institute for Family Planning
- MOHSA - Ministry of Health and Social Affairs
- OSROK - Office of Supplies - Republic of Korea
- PPFK - Planned Parenthood Federation of Korea
- MCH/FP - Maternal and Child Health Care/Family Planning

## KOREA

## SUMMARY IMPLEMENTATION SCHEDULE

#### A. NON-CONSTRUCTION ACTIVITIES

[illegible]

1/ Staff of ~~Project~~ unit and Project  
Advisory Committee to be in place by Jan.1, 1980.

## SUMMARY IMPLEMENTATION SCHEDULE

[illegible]

SUPPORTING TABLES, CHARTS AND MAP

- T-1 DEMOGRAPHIC TRENDS
- T-2 CHANGES IN THE PROPORTION OF MARRIED WOMEN OF REPRODUCTIVE AGE (15-44 YEARS) PRACTICING CONTRACEPTION OR HAVING HAD ABORTIONS
- T-3 AGE DISTRIBUTION BY BROAD AGE GROUPS, 1960-1975
- T-4 POPULATION: 1975 CENSUS, PROJECTIONS AND VITAL RATES
- C-1 ORGANIZATIONAL CHART OF THE KOREAN FAMILY PLANNING PROGRAM
- C-2 ORGANIZATIONAL CHART OF THE MINISTRY OF HEALTH AND SOCIAL AFFAIRS
- C-3 ORGANIZATIONAL CHART OF PROVINCIAL ADMINISTRATION
- C-4 ORGANIZATIONAL CHART OF THE KOREAN INSTITUTE FOR FAMILY PLANNING (KIFP)
- C-5 ORGANIZATIONAL CHART OF THE PLANNED PARENTHOOD FEDERATION OF KOREA (PPFK)
- M-1 KOREA: POPULATION PROJECT IBRD 14433

KOREA  
DEMOGRAPHIC TRENDS

	KOREA					REPUBLIC OF KOREA						
	1925	1930	1935	1940	1944	1944	1949	1955	1960	1966	1970	1975
Census population (Mil.)	19.0	20.4	22.2	23.5	25.1	16.6	20.2	21.5	25.0	29.2	31.4	35.3
Males (Mil.)	9.7	10.4	11.3	11.8	12.5	8.2	10.2	10.8	12.5	14.7	15.8	17.8
Females (Mil.)	9.3	10.0	10.9	11.7	12.6	8.4	10.0	10.7	12.5	14.5	15.6	17.5
Density per km <sup>2</sup>	86.1	92.5	100.5	106.6	113.7		204.9	218.4	253.9	298.9	327.4	358
Crude birth rate (per 1,000)		45	44	44	42		42	40		45	35	27
Crude death rate (per 1,000)		28	25	20	20		20	33		15	10	8
Rate of natural increase (per 100)		1.7	1.9	2.4	2.2		2.2	0.7		3.0	2.5	1.9
Emigration (000s)		301	438	1,022	1,202		-2,535	-350			4	16
Infant mortality rate (per 1,000)		241	203	152	133			105		64	58	46
Age dependency ratio		0.77	0.78	0.81	0.83		0.89	0.81		0.81	0.86	0.88
Life expectancy (Years)		33.6	37.1	42.6						52.6	61.9	64.8
Total fertility rate		6.2	6.1	6.2	6.1		6.0	5.6		6.3	6.0	4.8
Married women (Mil.) of												
reproductive age (15-44)		3.4	3.7	3.9	4.0					3.2	3.5	3.8
Singulate mean age of												
marriage for women		16.6	16.8	17.1	17.8			20.5		21.6	22.8	23.3

Note: Numbers between two columns refer to the average annual rate for that period.

Sources: T.I. Kim et al., The Korean National Family Planning Program, Population Council, 1972.  
 Korean Development Institute, Population Status Report, 1978.  
 Korean Institute for Family Planning, The 1976 National Fertility and Family Planning Evaluation Survey, 1978.  
 Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol. I, December 1978.  
 E. Hyock Kwon and Tae Ryong Kim, The Population of Korea, December 1968.  
 Tai Hwan Kwon et al., The Population of Korea, Seoul National University, 1975.

KOREA

CHANGES IN THE PROPORTION OF MARRIED WOMEN OF REPRODUCTIVE AGE (15-44 YEARS)  
PRACTICING CONTRACEPTION OR HAVING HAD ABORTIONS

	<u>Current Users of Contraception (%)</u>	<u>Ever Users of Contraception (%)</u>	<u>Induced Abortion Rate (%)</u>
1964	9.0	12.0	0.72 /1
1966	20.1	27.2	1.38
1970	n.a.	n.a.	1.45
1971	24.4	44.0	1.99
1973	36.3	55.0	2.05
1974	37.0	57.0	n.a.
1976	44.2	62.8	2.46

n.a. = not available.

/1 1963.

Source: Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol. I, December 1978.



KOREA

AGE DISTRIBUTION BY BROAD AGE GROUPS, 1960-1975

Age Groups	1960		1966		1970		1975	
	Population (000's)	(%)	Population (000's)	(%)	Population (000's)	(%)	Population (000's)	(%)
0-14	10,735	(43)	12,684	(44)	13,241	(42)	13,615	(39)
15-64	13,431	(54)	15,514	(53)	17,155	(55)	20,448	(58)
65+	823	(3)	961	(3)	1,039	(3)	1,218	(3)
TOTAL	24,989	(100)	29,159	(100)	31,435	(100)	35,281	(100)

Source: Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol. I, December 1978.

KOREA

POPULATION: 1975 CENSUS, PROJECTIONS AND VITAL RATES

A. Population by Age and Sex, 1975: Census and Adjusted Census Data

Age Groups	<u>Census (000's)</u>			<u>Adjusted/1 (000's)</u>		
	Total	Male	Female	Total	Male	Female
0-4	4,227	2,189	2,038	4,541	2,374	2,167
5-9	4,454	2,303	2,151	4,478	2,319	2,159
10-14	4,527	2,349	2,178	4,596	2,385	2,211
15-19	4,147	2,124	2,023	4,334	2,240	2,094
20-24	3,123	1,612	1,511	3,074	1,570	1,504
25-29	2,508	1,272	1,236	2,536	1,290	1,246
30-34	2,224	1,131	1,093	2,246	1,137	1,109
35-39	2,189	1,111	1,078	2,209	1,123	1,086
40-44	1,800	885	915	1,820	888	932
45-49	1,399	650	749	1,398	650	748
50-54	1,197	576	621	1,203	580	623
55-59	939	449	490	919	435	484
60-64	738	335	403	709	321	388
65-69	543	230	313	539	226	313
70-74	325	123	202	335	122	213
75+	339	106	233	344	106	238
Total	34,679	17,445	17,234	35,281	17,766	17,515

/1 Population utilized as base population for three population projections.

Source: Korean Institute for Family Planning, Statistics on Population and Family Planning in Korea, Vol. I, December 1978.

## KOREA

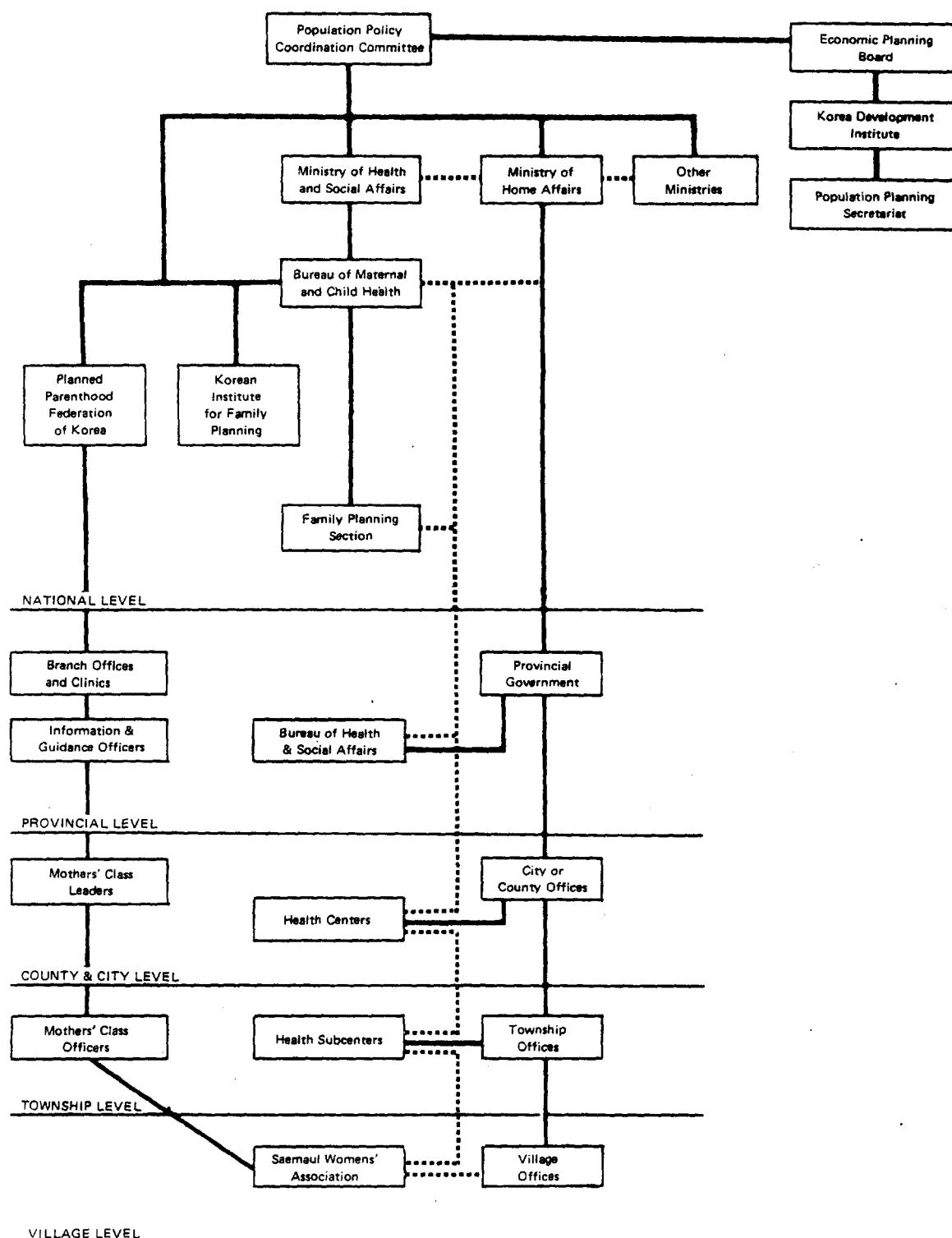
## POPULATION: 1975 CENSUS, PROJECTIONS AND VITAL RATES

## B. Population Projections, 1975-2000 and Vital Rates

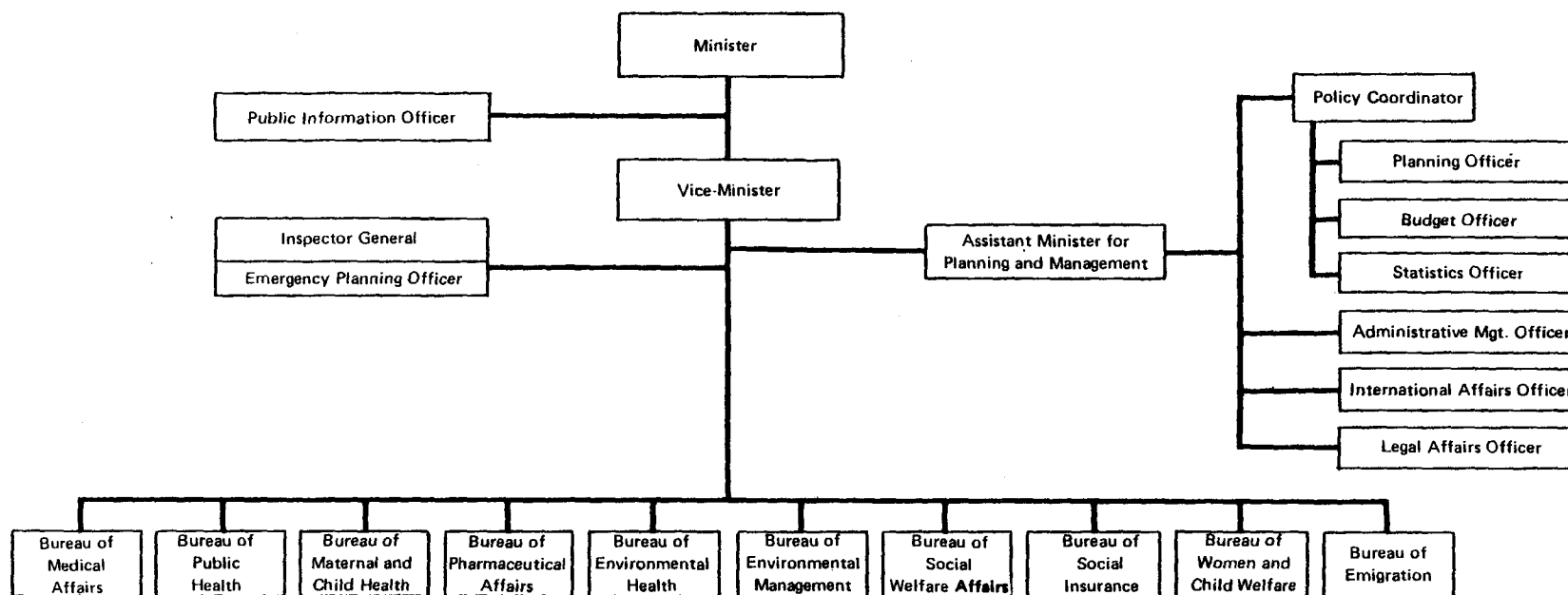
Projections (000s)	1975	1980	1985	1990	1995	2000
Total Population						
I	35,281	38,023	40,853	43,888	46,928	49,848
II	35,281	38,197	41,418	44,642	47,681	50,619
III	35,281	38,243	41,626	45,134	48,262	51,142
Primary School Age Population						
I	6,271	6,329	5,644	5,518	5,889	6,131
II	6,271	6,329	5,763	5,948	6,297	6,218
III	6,271	6,329	5,792	6,104	6,646	6,471
Secondary School Age Population						
I	5,433	5,359	5,369	4,982	4,566	4,890
II	5,433	5,359	5,369	5,020	4,867	5,319
III	5,433	5,359	5,369	5,028	4,958	5,571
Labor Force						
I	21,521	24,758	27,794	30,411	32,494	34,530
II	21,521	24,758	27,794	30,424	32,733	35,037
III	21,521	24,758	27,794	30,426	32,800	35,402
Population Density per km <sup>2</sup>						
I	357	385	411	444	475	505
II	357	387	419	432	483	512
III	357	387	421	457	489	518
Dependency Ratio						
I	725	602	530	490	491	493
II	725	609	551	516	507	491
III	725	611	558	533	523	497
Vital Rates <sup>/1</sup>	1975	1980	1985	1990	1995	2000
Total Fertility Rate						
I						
II	3.5030	2.7291	2.2389			
III	3.5030	2.9467	2.5415	2.2389		
		3.0949	2.7404	2.4722	2.2876	
Life Expectancy (years)						
Males, 0-39 years old	65.2	67.7	69.4	71.4		
" 40 years and over	63.1	65.5	68.0	70.0		
Females, 0-39 years old	69.6	72.1	73.9	75.9		
" 40 years and over	67.0	69.5	72.0	74.0		
Crude Birth Rate (per 1000)						
I	23.9	22.3	21.9	20.9	19.6	17.4
II	24.3	23.9	23.5	20.6	19.3	17.4
III	24.4	24.4	24.6	21.4	18.9	17.0
Crude Death Rate (per 1000)						
I	6.5	5.9	5.5	5.4	5.2	5.2
II	6.6	6.0	5.5	5.3	5.1	5.1
III	6.6	6.0	5.6	5.3	5.0	5.1
Rate of Natural Increase (%)						
I	1.7	1.6	1.6	1.6	1.4	1.2
II	1.8	1.8	1.8	1.5	1.4	1.2
III	1.8	1.8	1.9	1.6	1.4	1.2
Net Migration Rate (per 1000)						
I	1.3	1.9	1.8	1.7	1.6	1.5
II	1.3	1.9	1.8	1.7	1.6	1.6
III	1.3	1.9	1.8	1.6	1.5	1.5
Rate of Growth (%)						
I	1.6	1.4	1.5	1.4	1.3	1.1
II	1.6	1.6	1.6	1.4	1.3	1.1
III	1.7	1.7	1.7	1.5	1.2	1.0

<sup>/1</sup> Numbers may not add up due to rounding.

# KOREA ORGANIZATIONAL CHART OF THE KOREAN FAMILY PLANNING PROGRAM

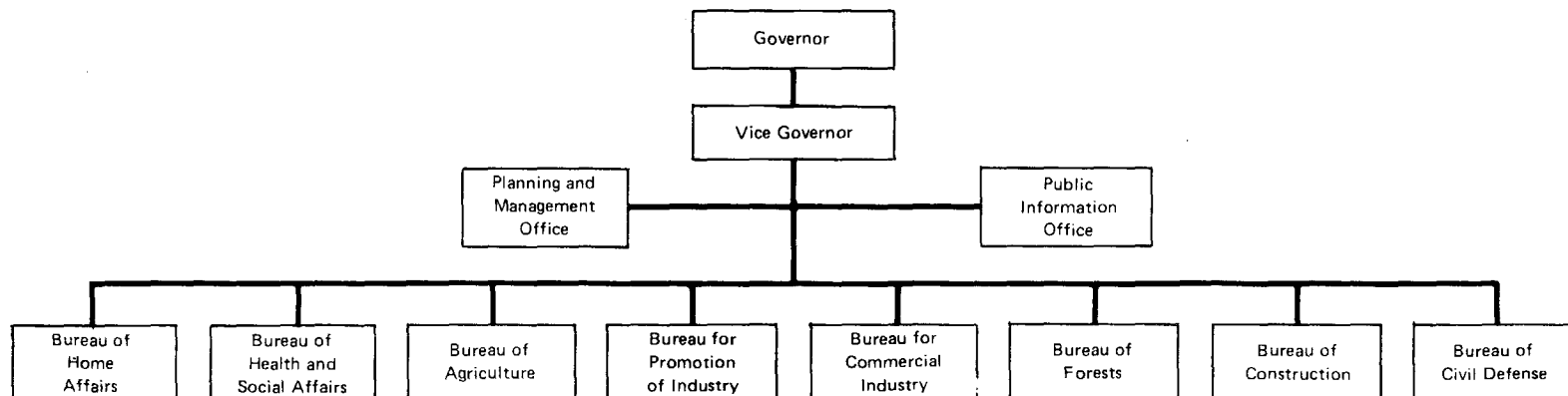


**KOREA**  
**ORGANIZATIONAL CHART OF THE MINISTRY OF HEALTH AND SOCIAL AFFAIRS (MOHSA)**



World Bank - 20689

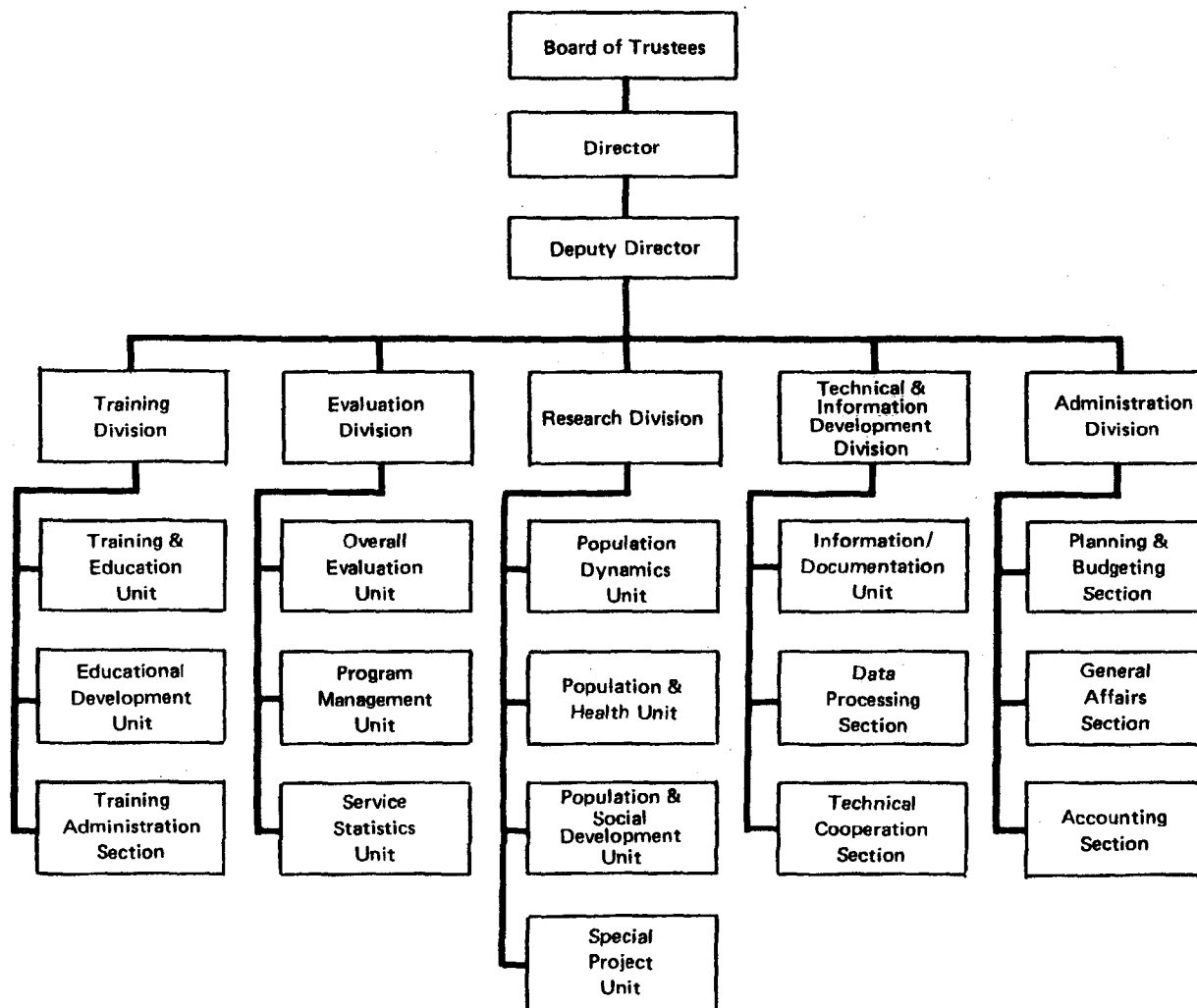
# KOREA ORGANIZATIONAL CHART OF PROVINCIAL ADMINISTRATION



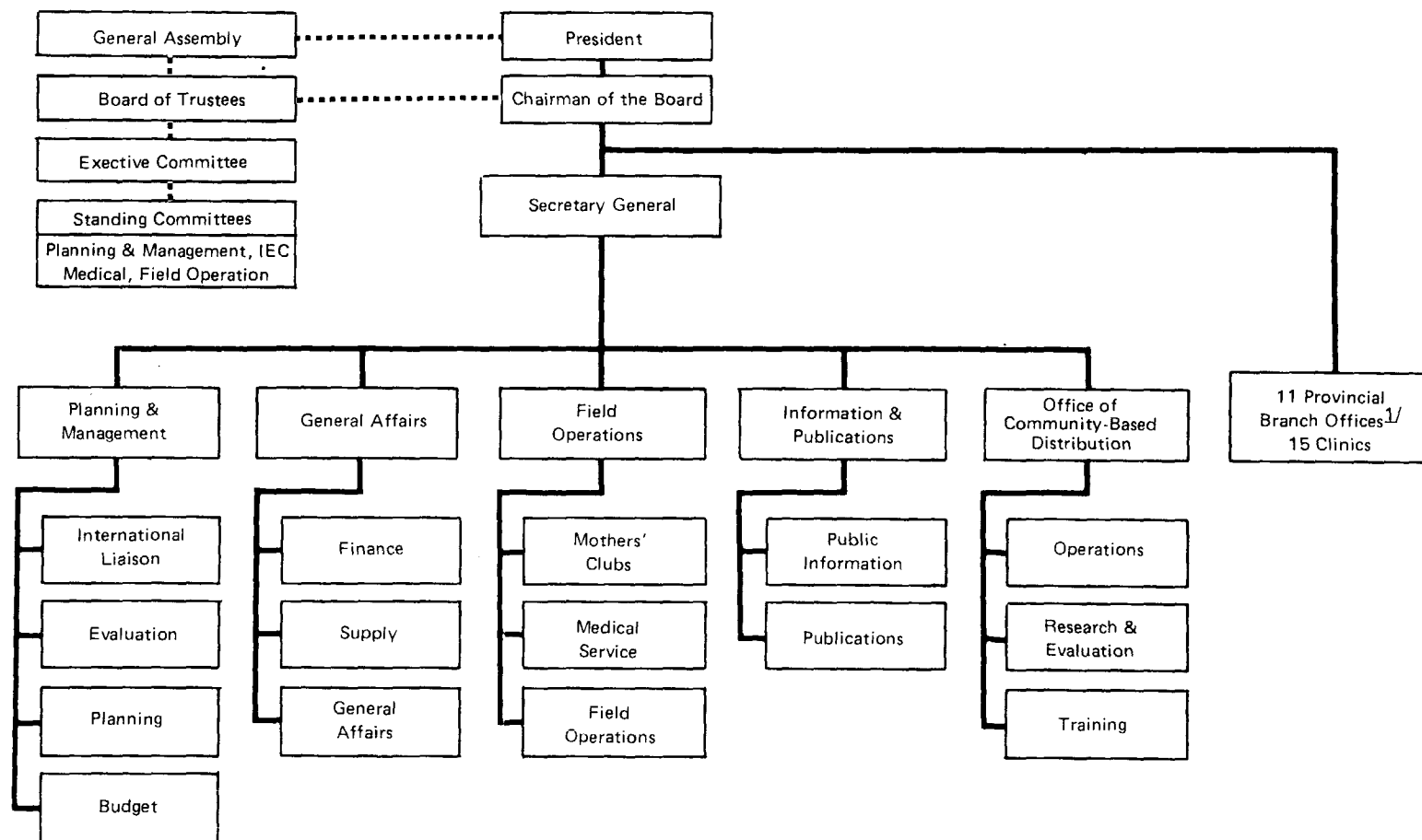
World Bank – 20692

# KOREA

## ORGANIZATIONAL CHART OF THE KOREAN INSTITUTE FOR FAMILY PLANNING (KIFP)



**KOREA**  
**ORGANIZATIONAL CHART OF THE PLANNED PARENTHOOD FEDERATION OF KOREA (PPFK)**



<sup>1/</sup>Each Provincial Office has three Sections – General Affairs, IEC, and Clinic Services – administered by an Executive Secretary who reports to a Chairman.



KOREA

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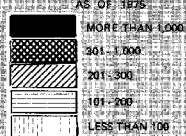
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#### POPULATION DENSITY (Kilometers Squared) BY GUNS AS OF 1975



#### KOREA POPULATION PROJECT

- ▲ PROPOSED MCH/FP CENTERS (TYPE A)
- PROPOSED MCH/FP CENTERS (TYPE B)
- ⊕ EXPANSION OF TRAINING BUILDING FOR KIFF, Seoul
- ⊕ EXPANSION OF PPK HEADQUARTERS, Seoul
- PROPOSED PPK CLINICS
- EXISTING HEALTH CENTERS
- RIVERS
- DISTRICT (GUN) BOUNDARIES
- PROVINCIAL OR SPECIAL CITY BOUNDARIES
- INTERNATIONAL BOUNDARIES

